

COMMENT

No time for goodwill

OUR fishing industry is being softened-up for a sell-out to the EEC. Slowly but surely, British and Irish claims for control of a 50-mile zone within Community waters are being strangled and, it becomes clear that the Commission is determined to move towards a system of quotas on which to base conservation of its fish stocks.

The strong talk by Mr. Crosland about Britain unilaterally declaring a 50-mile limit seems to have evaporated. He has now taken over the role of messenger boy for the EEC, rushing back to tell us what we have gained by excluding third countries from EEC waters.

Acceptance of a Community quota system will spell death for half the British fishing industry as we now know it. If Mr. Crosland thinks that we have solved the problem of controlling effort on the stocks by keeping out countries like Poland, Russia and Bulgaria, he should wait and see what the French, Danes and Belgians do when they get going.

The establishment of a 200-mile limit should have allowed us to throw off the yoke of the North Atlantic Fisheries Commission and its puny system of conservation. Instead, the Community plans to replace it with a similar regime, under which Britain and Ireland contributing 80 per cent of the resources, will be the losers.

For a year now, British fishermen have faithfully abided all the painful national and international controls imposed on them. Now the goodwill has run out!

If the might of the Community fleet is deflected into British waters next year, it will make the 'cod-wars' with Iceland look like a playground punch-up.

At this time of year when goodwill is the watchword, there also seems to be a lack of it in Whitehall. According to his press office, the Minister of Agriculture and Fisheries, Mr. John Silkin, is too busy to send out his traditional message of good cheer to the industry.

We suspect he might be too embarrassed to do so.

SKIPPER David John Forman and the wooden Peterhead boat *Resplendent* set a new British record at the port on Thursday last week for the value of fish landed from one trip by a seiner.

Their catch of 740 boxes realised £16,312 and beat the previous record of £16,029 set up a few weeks ago by Skipper Willie Campbell and the Inverness-registered 85-footer *Ajax*.

Resplendent had made a seven-day trip to the Shetland grounds and the catch was auctioned by Steven Ritchie, salesman with Peter & J. Johnstone (Peterhead) which is agent for the vessel.

Skipper Forman told *Fishing News* that he was fishing on his usual grounds and was not trying a new area because of the haddock fishing restrictions.

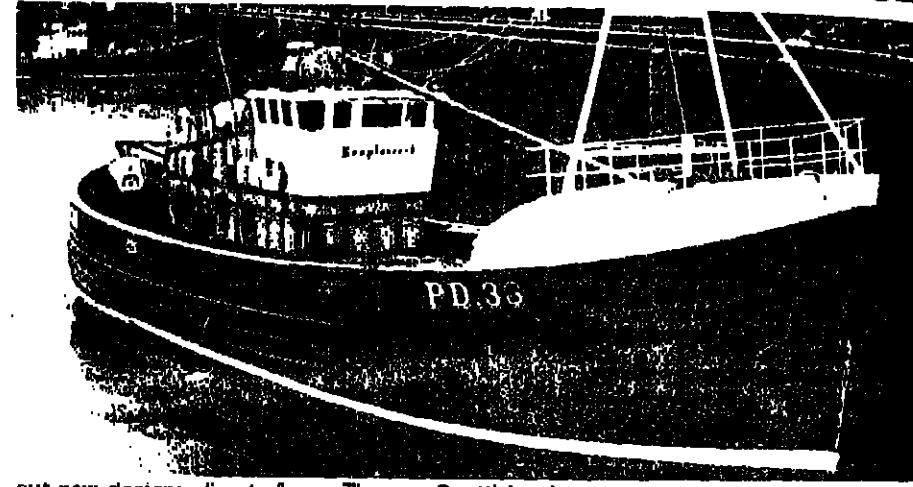
The catch included 638 boxes of codling and Skipper Forman said he has caught quite a lot of cod and codling this year.

Resplendent uses a Keen-fisher seine net from the Caley Fisheries Group Ltd. The net was designed by Peter Buchan, manager of Caley's net-making factory, and was made under his supervision.

It is a two-seam net designed for use by a 500hp vessel and is very popular with this size of boat. It has wing and forest meshes of 6in. and has 820 6in. meshes around its fishing circle and measures about 180ft. on the headline.

Mr. Buchan said that *Resplendent* is one of the first boats to use this net and that Skipper Forman had fished Keenfisher nets for a number of years. He has often tried

'Resplendent' £16,312 sets seiner record



out new designs of nets from the firm.

Skipper Forman has specialised in seine net fishing and has been very successful with his present vessel which was built in 1973. His former boat was also named *Resplendent*.

Caley has also supplied Skipper Forman with a white fish pair trawl. When fishing conditions are suitable, *Resplendent* will work this net in partnership with the Peterhead boat *Responsive*.

The new Scottish seine net record holder, *Resplendent*, Skipper David Forman landed mainly codling.

Soles £229 a kit

THERE were record prices for both soles and codley at Fleetwood last week.

Soles rose to £229 a kit and one merchant estimated that they would be selling for £3 a lb. in the London area. Codley, which has steadily been in-

creasing in price in recent years, hit a new high last week when it rose to £32.50 a kit. And this fish is often bought to feed cats!

"It is the old story of many dogs chasing a very small bone", said the merchant.

Call by frozen foods chief GIVE US A FISH SUPREMO

A FISHERIES supremo is urgently needed at the EEC, a frozen foods chief has told the Commons select committee studying the fishing industry.

Mick Coburn, managing director of Findus, said that this is the only way to achieve proper conservation policies within the EEC 200-mile limit.

"It's about time the British fishing fleet was stopped being kicked around as a political football," he said.

"We want someone who is tough enough not only to extract reciprocal agreements from the Icelanders, the Russians and the Norwegians, but who is also prepared to tell the EEC that its total fleet is twice the size it ought to be if we are to conserve fish stocks in Community waters."

Although refusing to be drawn on names, Mr. Coburn firmly said the supremo should be British — possibly from the trawling industry.

"We're the country that's contributing most to the EEC 'pond' and it is we who should have control over who fishes what, how much they're allowed to take and where

Mick Coburn of Findus

they can take it from. "And not only should there be an EEC supremo," he added. "We also need a strong man to head-up the British fishing industry and make sure its voice is heard in every corridor of power from Brussels."

Extended fishing limits are the only practical way to conserve fishing stocks, provided that the government which assumes responsibility has the will to conserve the fish.

Mr. G. H. Elliott, vice-chairman of Christian Salvage Ltd. has put this view forward to the Commons

committees when it investigated fishery limits.

He added that the element of government willingness is often absent.

"UK fishermen and processors would clearly be much more secure with a 50-mile exclusive limit than with the EEC proposal of community quotas between the old 12-mile national limit and the new 200-mile Community limit."

Mr. Elliott went on to say that investment in what is already a high-risk industry would certainly be choked by such uncertainties on the

future availability of fish stocks.

His company had turned down investments because governments could not give security that the stocks concerned would be protected against foreign fleets.

Charles Meek, chairman of the White Fish Authority, has told the committee that the WFA "very much dislikes" the EEC Common Fisheries Policy.

However, the WFA would be prepared to administer the policy in the UK, even though it would be a tough and unpleasant task.

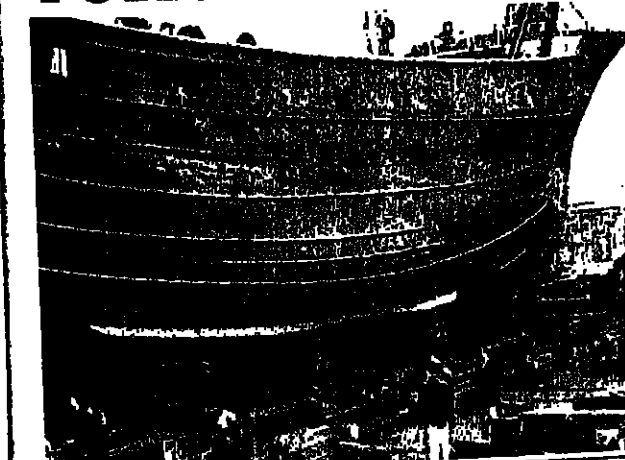


Close on £¼m

SKIPPER David Bedford is pictured (above) in the wheelhouse of the Lowestoft stern trawler *St. Patrick* which came close to earning £¼m. this year. The Colne Fishing Co. trawler completed her years' trips with a total grossing of £241,167. She spent 266 days at sea and landed 100,335 stones of fish. The successful days at sea and landed 100,335 stones of fish. The successful days at sea and landed 100,335 stones of fish. The successful days at sea and landed 100,335 stones of fish.

Mirrlees Blackstone marine diesels from 200 to 10,000 bhp

Tenders out



AS REPORTED in *Fishing News* last week the 140ft. Grimsby multi-purpose former distant water trawler *Real Madrid* has returned to her home port for repairs after grounding off Plymouth while mackerel fishing.

The 441-ton vessel was put up on to the fish dock slipways at Grimsby last week where an early inspection revealed quite extensive damage to plates between the keel and the bilge keel which buckled. The damage is on her starboard side, just forward of the wheelhouse.

It is understood the insurance company has invited ship repairers to submit tenders for the work, which it is hoped will be completed late in January.

After rather an indifferent start working mackerel shoals off the Lizard, *Real Madrid* had just begun to make real headway and she could not have grounded at a more inconvenient time. However, she was due to return to have a sonar fitted.

Consolidated Fisheries Ltd. hopes *Carlisle*, presently undergoing conversion at Grimsby, will be ready in time to join *Real Madrid* when she returns to the mackerel grounds.

Firm takes on agencies

BROWN & PERRING (Instrumentation) has made an agreement to market selected Furuno products and also the Seaveyor radar produced by the firm of Electronic Laboratories.

The company has also taken on agencies for Philips and National Panasonic. This means it can now offer audio and video cassette entertainment for fishermen. This is in addition to the firm's well known role of marketing and servicing Atlas Elektronik products.

Jim Gormal has joined the firm's Glasgow staff as northern regional manager to enable sales director, George Liper, to visit customers throughout Scotland more frequently. To further expand the Glasgow service facility, a new service engineer has also been added to the depot staff.

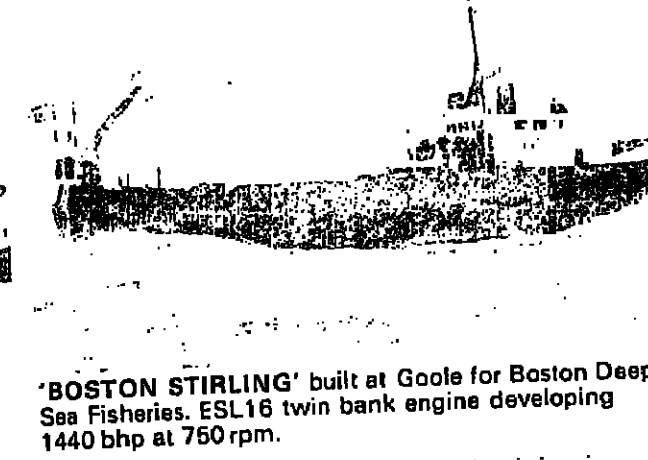
Brown and Perring has also appointed two new marketing men, Stephen Holmes and Bob Overment Jnr. The men, both graduates, will be based in London to further develop the company's marine activities.



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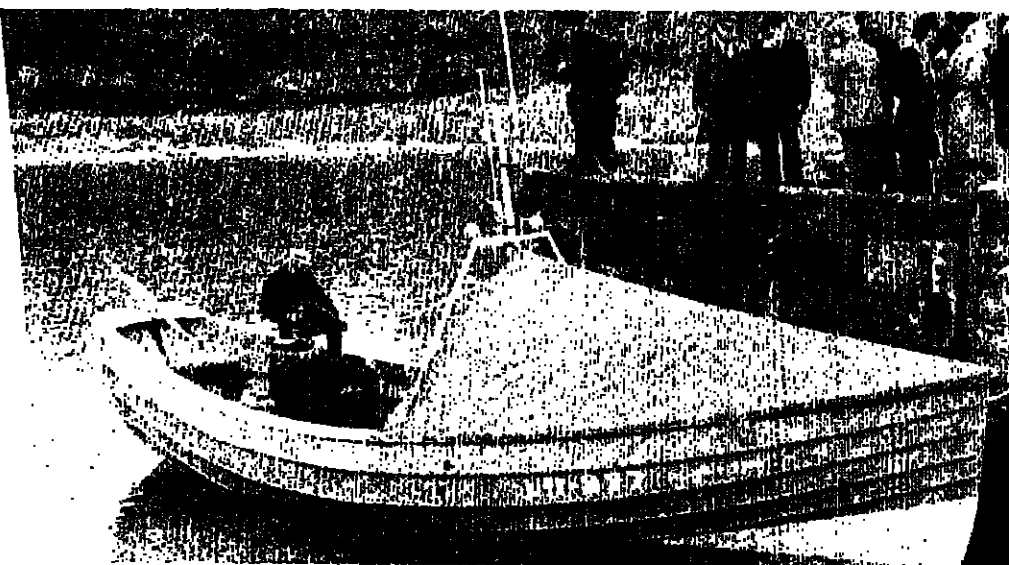
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THE latest addition to the Crater, Alnwick, fleet is the 28ft. 4in. cable Eleanor Dawson (above) for skipper-owner E. B. Dawson. Built at Seahouses by R. Dawson and Sons, she is powered by a 44hp Lister air-cooler engine with a Borg Warner gear box. A hydraulic hauler, Kelvin Hughes M539 echo sounder and VHF radio have been installed.

FUND PAYS £2,708

GRANTS to beneficiaries amounted to £2,708 during the year it was reported at the annual meeting of the Fleetwood Fishing Industry Benevolent Fund. John Turner, honorary secretary, stated in his report that there were no other cash

expenses as all services in administering the fund were given voluntarily. Mr. Turner said that as a result of grants some time ago, nearly £70 a week was being paid out to persons and their dependants. At the meeting John Thain was elected chairman.

HULL'S new and old fish docks provided a sharp contrast towards the end of last week.

While the local fishing industry's new base was without any trawler landings on Friday and had only about 1,100 boxes of overland supplies on offer, the old dock was deluged with fish.

So large were forwardings of sprats and mackerel to the Hull fish meal factory last week that the premises, which are capable of a daily throughput of 900 tons, were filled up. A further 1,000 tons had to be dumped temporarily in an old railway siding adjacent to the port's former market.

The overflow of this freshly caught fish, 90 per cent of which was sprats from North Shields, stretched about 200 yards. Assurances by factory staff that there was no health hazard and that the pile

would be cleared quickly and the area disinfected, satisfied the local Health Department.

"No drains are blocked and we are clearing up every ounce of fish lying on the site," said a spokesman.

The pressure could ease quickly in view of the factory's big daily output, but both the management and men have agreed that if there are any arrivals to process in the Christmas period the factory will operate for 24 hours on December 27 after closing on Christmas Eve and Christmas Day.

Commenting on the general position, Mr. M. Anderson, managing director of Hull Fish Meal and Oil Co. Ltd., told *Fishing News*: "This is a traditionally busy period for industrial fishing and activity has been accentuated by a number of boats turning their attention from haddock to sprats."

"The North Sea haddock quota is exhausted and there must have been somewhere in the region of 40 or 50 vessels, which normally would have been laid up if they had been without any alternative occupation."

"These people are now employed on our pelagic resources, which traditionally are taken in a greater part by foreigners."

"Now industrial fishing is becoming a more and more essential part of our fishing industry and it is a vital part of UK fisheries policy."

"It must be borne in mind that we are net importers of fish meal in this country to an

amount in excess of a quarter of a million tons a year and that British production, which should be extended further, is making a valuable contribution to our own country's balance of payments problem."

"The volume of sprats being landed, while far in excess of fresh requirements, is infinitely less than the amount taken by foreign fishermen, whose catch on the same grounds is estimated to be about ten-times more."

"So far as mackerel is concerned, there is an estimated stock in the English Channel of about a million tons and, of this, it is thought no more than 40,000 tons will be taken for production into fish meal," said Mr. Anderson.

Ward sells 73-footer

THERE has been a change of ownership for the Fleetwood pocket trawler *Craigmillar*.

The 73ft vessel has been sold by J. N. Ward and Son Ltd. to Lt. Cmdr. A. G. Hamilton DSC, of Woodchurch, Kent. *Craigmillar*, which is commanded by Skipper John Jackson, is continuing to be managed by Ward for the present.

It is not known where the vessel, which was built in 1959, will operate from in the future.

OBITUARY

passed in the trade. When he finally left the industry, Mr. Cullum decided to live in retirement at Grimsby and was on the verge of moving into his new home when he was taken ill. He leaves a wife, a son and two daughters.

THE DEATH occurred suddenly on December 11 of David Soames (41), a partner with Grimsby trawler owner Consolidated Fisheries Ltd. Mr. Soames collapsed at his home just outside Grimsby and was found to be dead on arrival at the casualty department of Grimsby General Hospital. He is survived by his wife, two sons and a daughter.

fishing news

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SPRATS SWAMP HULL MEAL FACTORY

Milford Haven trawlers land mackerel haul

MILFORD HAVEN had its biggest supplies of mackerel in many years last week and the variety paid off handsomely for two local vessels.

Pictou Sealion, which broke the port record with a £7,500 grossing on her previous trip, was at sea for only five days in catching 128 kits, including 90 of mackerel, which sold for £3,050. Skipper Trevor Salter was in command.

On the same day *Jadestar* (Skipper Jim Brodie) landed the week's most valuable catch. The vessel had 14 kits which made £5,858. Between them the two vessels landed a total of two of haddocks, 25 of cod, 20 of

whiting, 90 of roker, 90 of mackerel, 10 of turbot and 15 of plaice and five of soles.

The other vessel to get in on the mackerel catch was *Norrad Star* (Skipper Jim Manson). She returned to port after seven days with 157 kits, including one of haddock, 10 of cod, 10 of whiting, 20 of roker, 90 of mackerel, five of turbot and 25 of plaice and five of soles, making

£4,046. Landings of a more conventional type completed the week's supplies. *Rosevear* (Skipper Alex Simpson) landed 132 kits selling for £5,200, while *Bryher* (Skipper A. James) landed 126 kits on the same day also making £5,200. Two of haddocks, 45 of cod, 25 of whiting, 100 of roker, 10 of turbot and 25 of plaice and 25 of soles were the vessels' main varieties.

Billingsgate

THE MOST important thing to record at the end of this year is that Billingsgate is still there, in spite of the road building programme, the cod war, the fulfilments of the Ministry of Health as to the state of our hygiene, haddock quotas, the fall of the pound, price of cod fillet and the three, six, 12, 50 and 200 mile limits.

For more than 1,000 years, the market has stood against the vicissitudes of the outside world. No doubt William the Conqueror's reform of the coinage eventually filtered through to the Saxon dry-salters, even if our present day traditionalists still talk about 'two half-crowns and ten bob'.

Probably the Armada, which was five years a-coming, diverted honest fishermen from their proper job of keeping London's fishmongers prosperous. The perfidious Dutch, in days gone by fought us, not for the right to use their beam trawls on our very front doorstep, but to take their share of our herring. These storms were weathered, doubtlessly, with still families grumbling and dark predictions. Survivors of the present gales spend it on the rock of 'economic climate'.

As supplies from distant water ports dry up, the vacuum is filled from the smaller inshore ports and with imports from many parts of the world. Let others worry about the balance of payments, the market's job is to continue to supply London with its fish, no matter how politicians and bureaucrats pontificate. Adapt we must and so we shall for anyone can sell cod fillet to a public long conditioned to its acceptance, but it takes a Billingsgate salesman to convince his retailers that farmed rainbow trout are the ood of the future.

Not all do or will survive, firms rise and fall, men retire, or die, some regrettable prematurely, but others take their places in a market that like its neighbour, the Thames, 'just keeps rolling along'.

MUSSELS-THE FISHMONGERS CO. REPLIES

SIR, Your Billingsgate column of December 17 raises some criticisms of the way my company carries out its duties with regard to the public health control of mussels in the market and I would be grateful if you would allow me space to answer the charges.

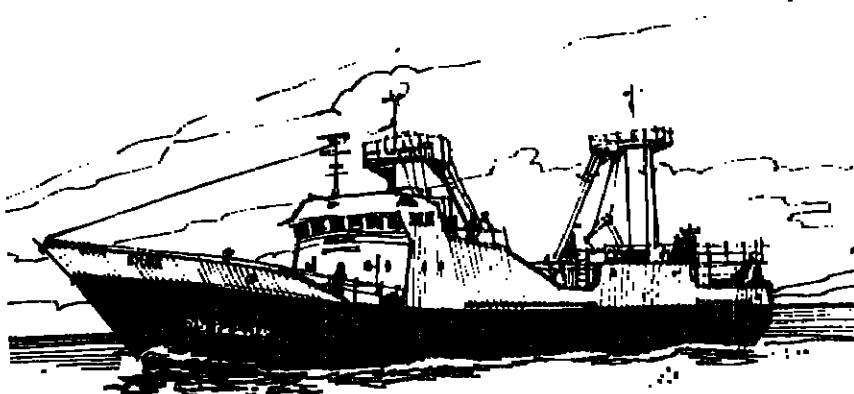
The link between molluscan shellfish and enteric disease is well established and control is there not only for the safety of the public but also for the general good of the trade.

While the number of mussels eaten raw may be small, there is a risk. Furthermore, I am not convinced that uncontrolled processing would result in the sterilisation of polluted mussels.

On the question of time taken to 'vet' a new source of supply, I am afraid that the figures, Belgian fishermen had taken less than the average amount of their quotas for both sole and plaice.

The Ministry is in close touch with the Belgian authorities to see that enforcement is effective. Until more exact locations

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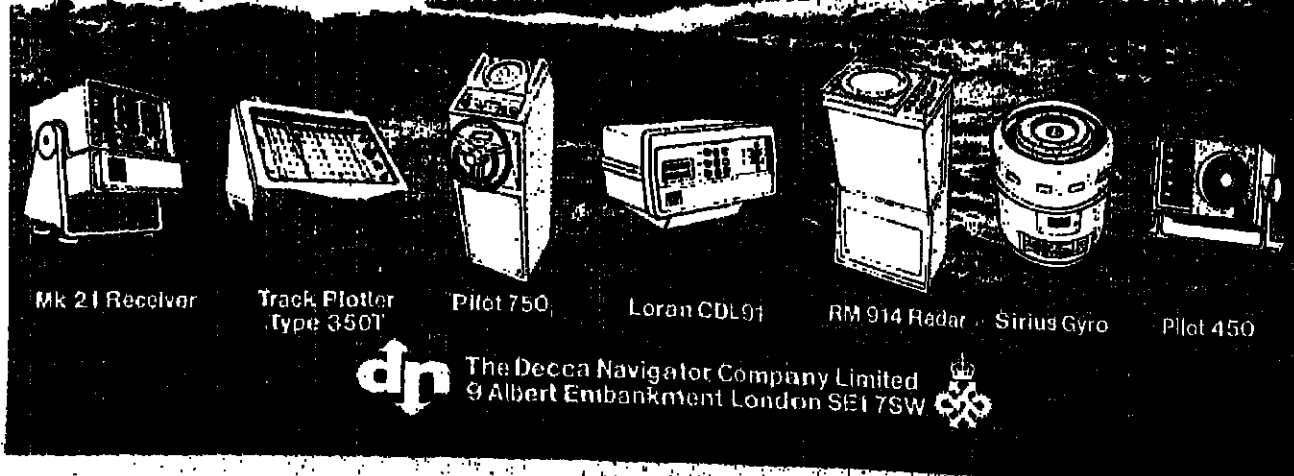
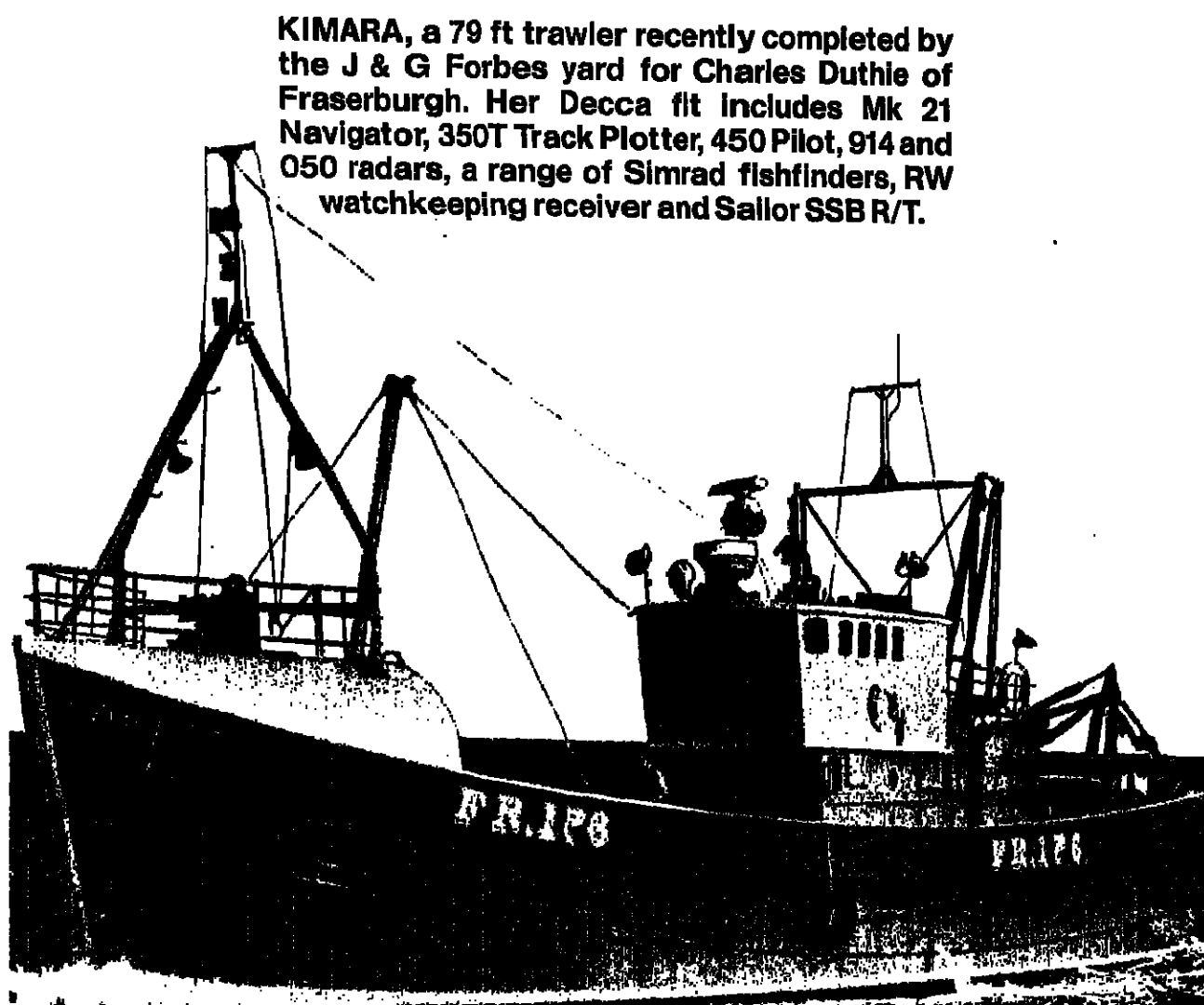
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Thick nylon lines from Italy

FINE nylon monofilament lines for making fishing lines and nets have been with us for a long time now but, until recently, they have not been produced in larger diameters for any purpose — presumably because of the fairly high cost of nylon.

Lately, however, an Italian firm — Società Italiana Applicazioni Termoplastici Srl. — has started to produce larger diameter lines in quantities and they are now available in this country.

They are called SIAT lines and are one seventh the weight of steel wire, metre for metre, and two thirds its strength, diameter for diameter.

They are lighter, easier to

handle, corrosion-proof and less expensive than steel wires. And they can be plastic welded together to make netting as steel wires can to make welded mesh netting.

Ends of the lines can be knotted and secured by whipping, or clamped, or fitted with terminals as used on steel cables. And all devices normally used for steel wire may be used for uncoiling, cutting and tensioning them.

Eight different sizes between one and six millimetres diameter are currently available, all of them in a neutral colour; but four of them are also available in black as well, and two of them in black, green and yellow.

Obviously SIAT lines have properties which will make

them suitable for some applications in fishing vessels and the fishing industry.

They could be used for Bowden type control lines; instead of steel wire in steering control lines; as lifelines; and, if they don't stretch when wet, as mast stays in small craft.

You can cut the lines with a sharp pocket knife and you can weld ends of short lengths together by holding them over a flame. You could, therefore, make lobster pot entrance rings with them.

You could use lengths of 3 or 4mm diameter line instead of wicker to make pot top entrances. You could doubtless use 4 or 5mm diameter line to make indestructible fish baskets. And netting made from welded SIAT lines might possess advantages for making fish farming cages.

I once had a letter from a salmon fisherman in Scotland who wanted to know whether it would be feasible to antifoul ropes used to hold his bag nets in position to prevent their getting covered with fouling organisms.

At the time I suggested he use Parafil which, on account of its smoother outer surface, would not accumulate so much growth and because of its strength could be used in smaller diameter sizes.

Now I think I would suggest that he try 6mm diameter SIAT line which would serve the same purpose at less cost.

In the main, SIAT lines will probably be used in fishing vessels to replace steel wires exposed to corrosive influences. But there are likely to be many applications in addition for which they will prove both suitable and an economic proposition.

Particulars, prices and samples of lines are obtainable from SIAT Hewitson International Ltd., Empire Buildings, St. Paul's Road, Smethwick, West Midlands.

CONGER HOOKS WANTED

"WE ARE fitting out our new boat for longlining and hope to be fishing — mostly for conger — in the spring."

"We would like to know what size hooks it would be best to use; whether ringed, spade or swivel hooks would be most suitable; and where we can purchase hooks in wholesale quantities."

It is just about impossible to advise anyone on what size of hooks would be best for taking a particular species.

Although most hook manufacturers conform to the general practice of categorising a hook measuring about 7/16 in. (11.1 mm) across the gap as a Size One hook, those above that size as 1/0-10/0 etc. and those below it as 2-20 etc., consistency in this respect is far from universal.

And even individual manufacturers sometimes describe the sizes of their hooks in different ways.

Two factors affect the size of a hook: its pattern and the width of its gap (distance between point and shank).

Hook sizes of different

patterns, therefore, vary to some extent and the only way to define them precisely is to quote both quality and size number together.

It is almost impossible to advise about sizes, but not quite. When manufacturers or suppliers list some of their products as salmon, haddock or conger hooks, there can be no doubt that such hooks are of a size and type specifically designed for catching certain species.

In this case Sundridge Tackle Ltd. list, among the hundreds of different types of VMC hooks it can supply, several designated 'conger' hooks.

Among these are flattened (spade), long shank Round Conger and Kirby Conger hooks. Standard and Special conger swivel hooks. It is, therefore, possible to advise you to make a selection from these.

Flattened or spade hooks are better for use with longlines

Keep eels for rising prices

"I HAVE been told that deliveries of live eels to London from Lough Neagh ends about the end of August, prices start to rise and that eels delivered from September onwards may fetch twice as much as they would have done in the summer."

"I have, therefore, been thinking of building a large trap in which I can keep eels until prices rise."

"You mentioned recently that Bridport-Gundry and another company are collaborating in producing cages for fish farmers."

"I should be obliged if you could let me know whether you think one of these would be suitable for storing eels and, if so, send me some information about them."

As Bridport-Gundry make 1 in. mesh lantern netting in sheets about 15 ft. (4.8 m) wide, I should think it probable that Savack Service Ltd., the company with which it is jointly producing cages, could design and supply one suitable for your purpose.

Basic component of these cages is the Savack floating collar which consists of a series of floating modules bolted together through flexible mounts to produce, whatever shape of cage is required.

The collar supports square or rectangular frames made of galvanised steel piping and covered with netting.

These are secured to each other to form what you might call the neck of the cage, top rail of which is about 3ft. above the collar.

Since you can walk on the collar, it enables you to walk around the neck, lean over the rail and use a dip net to take fish out of the cage.

I suppose the depth of netting attached to the collar-enclosed frames is determined by the depth of water in which a cage is to be moored, degree of exposure to tidal currents and surges, and type of fish to be kept in it.

Depth of netting in an eel cage, I suppose, would not have to be too great to prevent you leaning over the rail and scooping eels from near the bottom — if such procedure is possible — for transfer to tray cages or boxes.

Savack Service Ltd., however, has acquired considerable experience of designing cages to suit individual fish farmer's requirements.

The company could no doubt make suggestions as to the most suitable size and shape of cage for storing eels close to wherever you catch them if you address an inquiry to its head office and works in Starte Road, Poole, Dorset.

It is, I am told, likely to recommend one of the new series of cages which it has recently introduced: cages which are smaller than those designed for use with buoyant walkways.

John Burgess' log



SPRAT FLEET STAY NORTH

THE MAIN shoals of north-east sprats remained off the Tyne last week.

Several of Grimsby's converted seiners got in one or two trips apiece, making landings only just short of the 100-ton mark. These included Arco, Champion, Helena, Gorse, Lochearn and Saxon King.

However, it was another very big week for the pair trawlers which have moved on to the sprats.

A spokesman for Grimsby omers and agents, A. E. Richardson & Co. Ltd., which has five such vessels in the sea, reported catches in excess of 200 tons from Glenda

(Skipper Francois Wintain), Ellen (Skipper Allen Thimmesen) and Samantha (Skipper Hugo Thimmesen).

Samantha, in fact, was one of three vessels which landed at Grimsby with one trip of over 100 tons taken in just two days late in the week.

Earlier, Dover Star and Searcher had landed just short of 40 tons between them.

Most of the Grimsby skippers plan to fish on until Christmas from North Shields and then come home with their crews by road for the holidays.



Boston coming inshore at Fleetwood

FLEETWOOD'S Boston Deep Sea Fisheries branch has started a new small boat venture at the port.

The branch has, up to now, concentrated entirely on middle and distant water fishing. However, now it has taken over near water trawlers and, if these are successful, more may follow.

The boats are Speedwell and Reynard II which have been fishing for Boston out of North Shields.

Below: part of the 100-ton plus catch of sprats in the deck pounds aboard Samantha at Grimsby last week.

St Mark's top spot

TOP vessel at Lowestoft last week was the Colne Group's St Mark.

One of only two vessels to land on the Tuesday, her 16-day trip under Skipper J. Kelly made £10,736 from 285 kits. It was the only grossing of the week to exceed £10,000.

Second place went to Tallisman's Outton, Queen which, after 13 days at sea under Skipper A. L. Hutchinson, landed 195 kits worth £9,736.

Small & Co.'s stern trawler, Suffolk Monarch, with Skipper B. Borrett in command, landed 218 kits last Friday to earn £9,664.

In fourth place was the other vessel landing on the Tuesday, the Boston Group's 'mini' stern trawler Boston Sea Knight.

ONE DISTANT TRIP

NEAR and middle water trawlers kept the flag flying at Fleetwood last week as only one distant water vessel landed.

The result was excellent prices for most fish, with the notable exception of dogs and roker which did not catch the merchants' eyes.

The distant water vessel to land was Luneda, commanded by Skipper Bill Reader, which returned from the White Sea with 973 kits, including 800 of cod and 180 of haddocks. She grossed £31,507 — a figure which fully reflects the big demand for cod.

It was a good week for the 109ft. London Town, currently having a good run under

the command of Skipper Peter Weirman. The vessel landed 321 kits, including 10 of hake, 80 of cod, 40 of haddocks, 40 of coley, 20 of roker and 50 of dogs which sold for £9,766.

Just behind was the former Aberdeen vessel Admiral Hawke with 442 kits from a trip to the west of Scotland under Skipper Jack Kirby. The vessel's catch sold for £9,764 and included: 55 of hake, 45 of cod, 60 of haddocks, 15 of coley, 20 of roker and more than 200 of dogs.

On the day of London Town's landing came a notable catch from the pocket trawler Furads (Skipper Bill Phillips). This stalwart of the fleet hit a good seam of cod

variety in 163 kits which sold for £5,327 — her biggest grossing since arriving at the port several years ago.

The former Irish trawler Susan Bird has been finding success under the command of Skipper Derek Reader. Her last trip was an exception, with the vessel landing 234 kits (50 of cod, 55 of haddocks, 20 of roker, 35 of dogs). Markets hit their peak on the day she landed but, with certain varieties, fell away as shown by the £8,127 grossing of David Wilson.

This vessel landed 25 of hake but it made only £1,300, while dogs went down to £7 a kit. In direct contrast was the demand for coley — up to £32.50 a kit was being paid.

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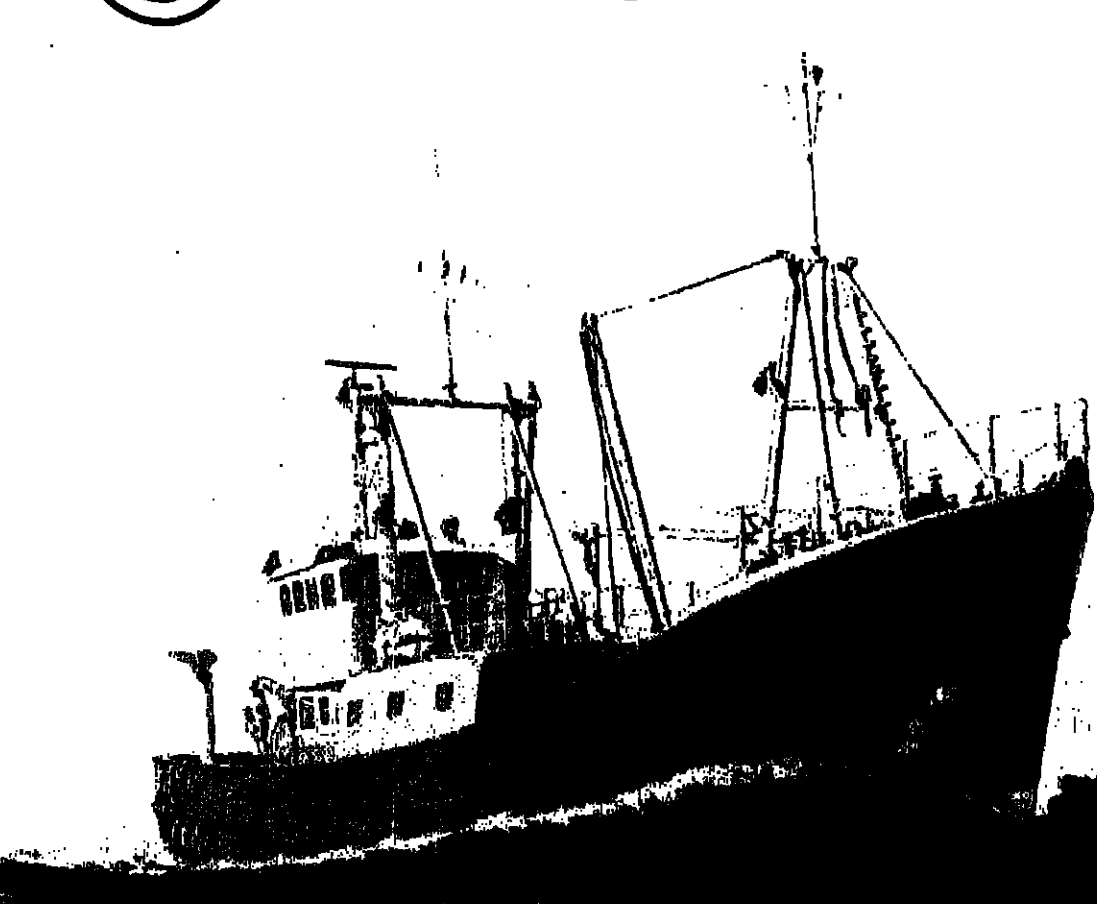
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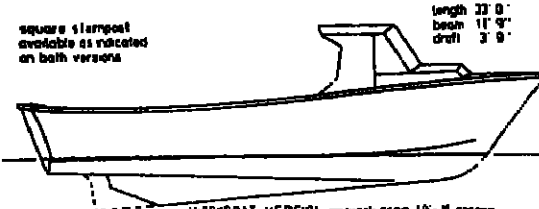
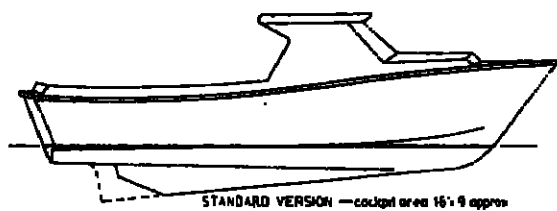
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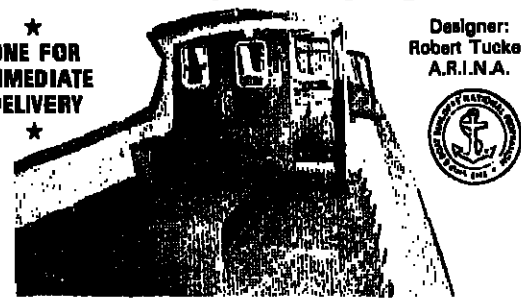
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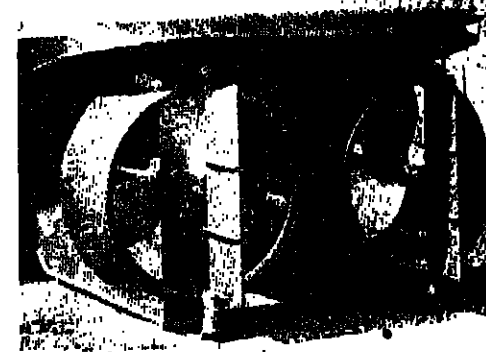
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fish handling

PROCESSING AND MARKETING

LIQUID FISH

A BREAK-THROUGH into the production of liquid fish protein is now at an advanced stage on Humberside. For several years liquid fish protein as an animal feed has been assuming growing importance in countries like Denmark and Holland where fishing and farming are major industries.

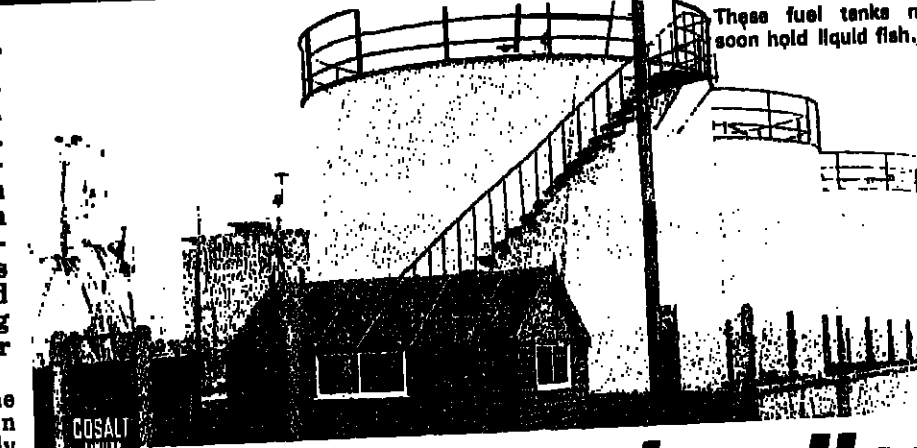
British interest in the process has so far been minimal and confined largely to various enthusiastic research establishments, but all this could change if permission for a pilot scheme is granted to Cosalt Ltd. at Grimsby.

For generations this company has pioneered scores of new ideas of benefit to the fishing industry. As usual, it has gone into this project very thoroughly and is now only waiting for the go-ahead from Grimsby Borough Council and the British Transport Docks Board to launch the pilot scheme on Grimsby fish docks. Modest production would be up to 10-tons daily.

The idea is to evaluate the viability and potential of the process in practice and, then, it would be decided whether to apply for building permission to erect a full-scale plant on Grimsby docks. This, it is hoped, would stimulate similar developments in this new source of high protein elsewhere, particularly at other Cosalt-based ports.

The main advantages of the production of liquid fish protein over present methods of reducing white fish offal to meal are the ease of handling the end-product — and the virtual elimination of any offensive smells.

Cosalt's general manager, Mr. A. B. Swan, told *Fishing News* that the plan to manufacture liquid fish protein, also called fish silage, had already aroused a great



Animal protein pilot scheme for Grimsby

deal of interest among pig breeders on Humberside. Mr. Swan explained that feeding trials on pigs showed they grew just as fast on the liquid diet as on ordinary meal. The protein can also be fed to cattle and poultry, but the Cosalt scheme is directed specifically at pigs at this stage.

The pilot project hinges on permission being granted for the use of three redundant oil storage tanks on Grimsby fish docks, which Cosalt would utilise largely as holding tanks for the chemical breakdown of white fish offal. The process takes about a fortnight.

Industrial fish are ideal for the manufacture of liquid protein and are widely used

on the Continent but, because of their high oil content, they must be drawn off by a separation process. The Cosalt trial plant would, however, stick to white fish offal only. This offal is already available on the fish docks in considerable quantities, being collected daily by the local fish meal plant. Transportation to the site would cause no new environmental problems.

Mr. Swan said Cosalt planned to mine the offal on receipt — no untreated offal would be stored at the plant — and mix this with the chemical BP product Bio-Aid. This agent prevents bacterial spoilage, eliminates health hazards and renders the mixture odourless.

The chemical combines with natural enzymes in the offal and breaks the product down into soluble units which are transferred after about 48 hours to the final holding tank. Here, the breakdown continues with the liquid fish protein ready for distribution to farmers within two weeks.

The end-product has a rather pleasant malty tang and looks like brown gravy, but this may vary according to type of offal used. It stores well, is easily transported and once pig breeders adopt the liquid feed system they seldom revert to solids.

Cosalt may be on the verge of something which could play a vital role in the future of British fishing.

Fishing News
quarterly
supplement
No. 4.
Dec. 24-31

Scots fish plant clash

A DECISION by a fish processing firm not to attend or be represented at a planning inquiry into its application for a plant at Arbroath, Scotland, has been described as 'unusual and unfortunate' by inquiry Reporter, Arthur James Hunt.

The inquiry held last week at Arbroath Library — was called by the Secretary of State for Scotland to settle a clash between Angus District Council, which approved the application, and local residents who opposed it.

The firm, R. R. Spink & Son, had hoped to open a fish processing plant at 12/14 West Newgate to expand its present business at Seagate. It had informed the district council that it intended to fillet and skin fish at West Newgate.

Fish gutting would continue to be carried out at Seagate. Local residents had opposed the application as the area is basically residential with small cottage industry in the backyards. They had argued that this new plant would be too large to fit in with the traditional cottage industry and would cause problems of noise, traffic congestion and bad smells in the area.

Councillor George Cargill spoke on behalf of the District Council Planning Committee and he pointed out that the committee had approved the application as it would help to keep the local fish industry going after the serious blow of increased harbour charges.

Director of Planning, William Ferguson, told the inquiry that he had opposed the application in his report, but that the planning com-

Way into export selling

ONE-DAY courses arranged for firms wanting to break into the frozen fish export business have been proving popular.

These courses have been designed specifically for firms which have not previously exported or just dealt with the odd inquiry. The courses cover all stages, from finding a market to obtaining payment, and are aimed to help firms set up their own simple and un-sophisticated export operation.

Already a number of one-day 'Export Briefing Courses' have been held for fishing industry and frozen food representatives. Courses can be staged either in London or on the clients' premises and cost around £100.

Details can be obtained from: Mr. F. O. Marsh, Frozen Foods Link, 53a Rutland Gate, London, SW7. Telephone: 01-589-7187.

Ross moves into Kent port

ROSS GROUP has moved right on to the quayside at Whitstable, Kent, to stake a firm claim in the south-east's valuable and increasing landings of prime flats, day-old ood, whiting and roker.

There is also easy access to supplies of estuary herring and sprats. Ross has had a depot at Maidstone, the county town of Kent, for some time but direct contact with fishermen has been limited. But with the south-east still not covered by any producer organisation, the new set up could have real significance for the area.

The move follows Ross policy which has already seen the establishment of depots at Brighton, Bristol, Bournemouth, Wokingham (Berks), and depots such as Whitstable will act as distribution centres for Ross frozen fish

and fish products, in this case from Lowestoft, plus prime inshore fish from the Kent ports.

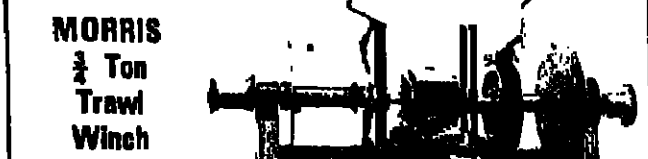
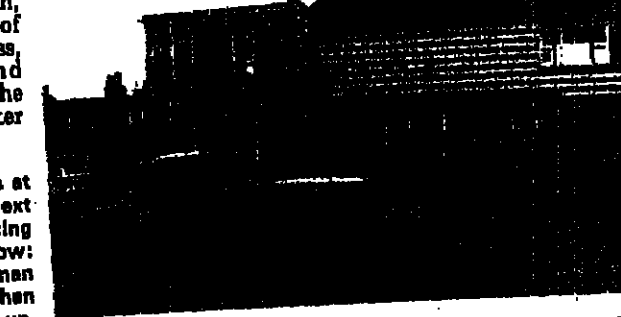
However, there is a possibility that local fish may soon be filleted and frozen at Whitstable, presumably to iron out highs and lows in supplies.

Planning permission has been requested for a 60-ton low temperature cold store and a 20-ton chilled store, possibly with two Jackstone freezers and a hand filleting line. An empty warehouse alongside the new Ross offices provides an ideal site.

The man behind this new move is local fisherman and merchant, Vic Davis, who owns the port's biggest and best stern trawler, *Tykela*. For many years he has bought local fish and supplied Kent retailers and Lowestoft market with inshore fish. Now his customers have been taken over by Ross, while he looks after the firm's buying on a commission basis.

There is no suggestion at present that Ross activities should extend to shellfish, although this is the home of the Gilsons' cockle business, Cardium Shellfish and Seasalter Shellfish Ltd. The latter specialises in oyster broods.

Right: the new Ross offices at Whitstable harbour. The next move is to increase freezing and cold store capacity. Below: Vic Davis (left), the fisherman who became agent, and then buyer, for the new Ross set-up.

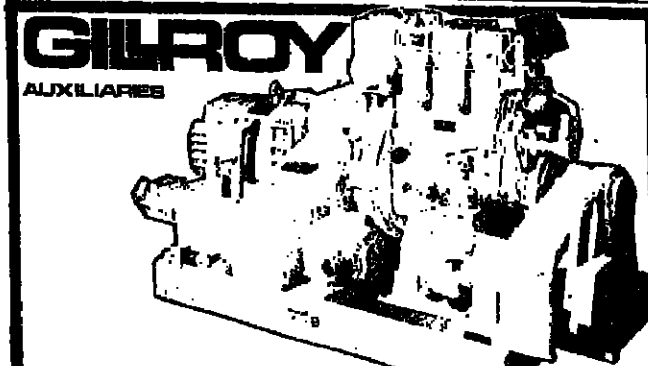


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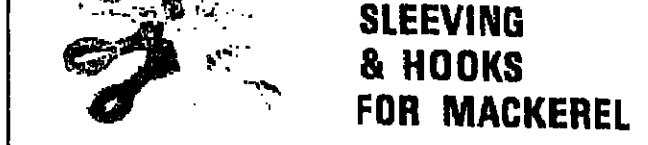
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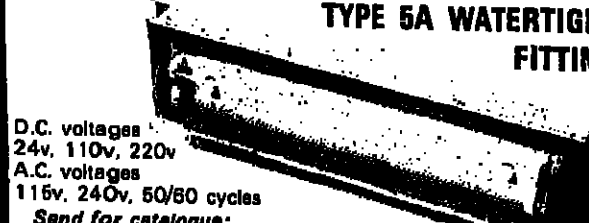
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DLING, processing and marketing

NON-RETURN KIT ON TRIALS

WITH THE fishing industry facing ever increasing costs, fishermen and buyers are considering the use of non-returnable containers. They could be used for boxing catches at sea and transporting fresh fish on ice to the processor or other markets.

Now boxing-at-sea trials are taking place with a specially developed fibreboard container.

The majority of fishermen still use traditional wooden boxes for boxing catches at sea and they pay a hire charge to salesmen. However, the loss of boxes is so extensive that in order to recoup some of the expense the hire charge has to be high.

Buyers, too, are faced with the loss problem and they also have to pay heavy return transport costs for empty boxes.

About a year ago the South London-based firm of DRG Merton Packaging was asked by a fishermen's association if it could design a non-returnable container for boxing catches at sea. At the same time the firm was approached by a large processor to produce a non-returnable box to carry fresh herring fillets under ice to the Continent. Subsequently the firm introduced the Merstone-4 Fish Kit which represents a new concept in the design of fibreboard containers.

It is open-topped and bas-

ed on the design of the well established wooden box. Measuring 672 x 376 x 150mm, it is claimed to have a capacity for four stones of fish.

The box is wedge-shaped to prevent the upper box from slipping into the lower one when they are stacked and it has girder-type side flanges and shaped corner posts to give stacking and carrying strength.

Like the smaller Merton non-returnable boxes already in wide use among fish merchants, the new box is made from 'Pachyderm', a specially treated solid fibreboard coated on both sides with polythene. It is supplied as a single piece of flat board ready for folding and slotting into shape.

A number of inshore boats have used the boxes during short trips of a day or so, but the makers say that the use of the box at sea is still very much in the experimental stages.

Sea trials with the box are under way in Scotland and many fishermen are showing interest.

One boat which has been using the boxes for some months on two-day trips is the Brixham-based seiner *Constant Friend*.

"Although it is early yet to come to any firm conclusions about the value of using these boxes, we do know they have excellent fish keeping qualities," Skipper Tony Rae told *Fishing News*. "Insulation is good and the fish do not move around in the boxes."

So far there has been no big difference in the price paid for the fish, said Skipper Rae. He is also dubious about the ability of the boxes to take four-stone of fish. Using whiting, with a good sprinkling of ice, we find they are taking just over the three-stone mark, he added.

There seems to be little doubt about the strength of the box. In an experiment aboard *Constant Friend* one box used three times was still in good condition.



Whiting inside a Merstone-4 Fish Kit aboard the Brixham-based seiner *Constant Friend*.

For boats landing off at a number of ports, the non-returnable container could cut out a lot of time spent hanging round for the traditional box pounds to open, said Skipper Rae.

At present the box is gaining more general acceptance among fish merchants.

Already Fraserburgh merchant John Hendry, is using the boxes for sending headed cod and coley, whole mackerel, sole and haddock under ice on lorries to Billingsgate and Manchester markets. Other merchants are making serious enquiries about them for transport to the Continent in addition to UK destinations.

DRG Merton Packaging has been making small capacity fibreboard boxes for about ten years, and its range of 1, 1.2, 2, 3 and 4-stone non-returnable boxes are in general use among fish merchants in the UK and on the Continent.

The fibreboard is specially treated so that moisture cannot work between the

polythene surfaces and fuse them apart. Tests have shown that the boxes remain resistant to water immersion for up to 24-hours without the material softening or delaminating.

Flat, cut and creased sheets of 'Pachyderm' are supplied to merchants ready for assembly into boxes by stitching or slotting together at the corners by the specially developed Webster Lock.

About four years ago a one-piece box was introduced which can be folded into shape from a single piece of board.

Boxes are also available with specially shaped drainage holes to allow excess moisture to escape as the ice melts.

In 1972 an upgraded fibreboard named 'Pachyderm II' was introduced. Main feature of this material is the use of a brilliant white polythene coating which enhances its appearance when printed with the merchant's name and graphic design.

Scotland plans giant box pool

SCOTLAND is gearing up for the extensive use of plastic fish boxes.

A steering committee consisting of representatives of fishermen, fish anilomans, merchants and transport operators has been set up to accelerate the introduction of plastic fish boxes into the inshore industry.

A meeting was convened earlier this month at Aberdeen by the White Fish Authority and Mr. J. R. D. Murray, secretary, agreed to act as the committee's independent chairman.

The WFA's advisory service will be available for consultation with committee.

A spokesman for the WFA said that the committee would hold its first meeting in January. They will investigate the replacing of the wooden boxes widely used by the Scottish inshore fleet. It was expected that they would select a suitable plastic box design and prepare plans for a single central box pool.

Mr. Murray said: "Since the initial meeting, the authority's management advisory service

has started work on preparing information on the choice of box design and all systems for control of the distribution and recovery of boxes for the committee's consideration."

In October a party of Scottish inshore skippers and trade representatives travelled to France on a visit sponsored by the plastics firm Allibert.

The delegation, impressed by the use of plastic boxes used on the French market, agreed there is an urgent need for change in Scotland.

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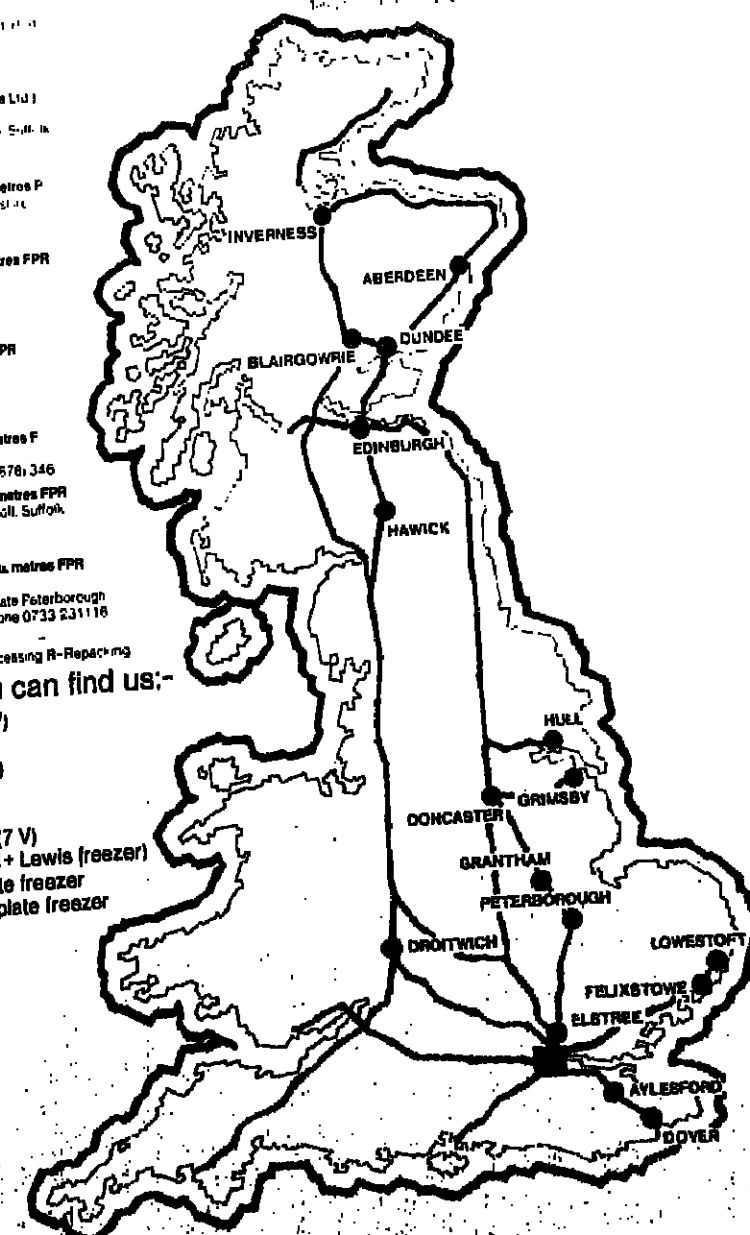
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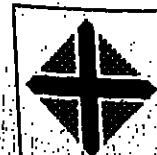
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The Merstone-4 Non Returnable Fish Box



The Merstone-4 is a general purpose open-topped fish box for transporting 4 stone of herring or small fish from the port of landing to other markets and processing plants, or to Continental outlets.

It is manufactured from 'Pachyderm', a high quality polythene coated waterproof solid fibreboard. Size 26 1/2 x 14 x 5 1/2" (672 x 376 x 150 mm.), the triangulated side flanges and shaped corner posts are designed to give carrying and stacking strength. The wedge shape prevents the upper case from slipping into the lower case when stacked.

The Merstone-4 has successfully provided a means of landing fish directly onto the quayside and has the advantage over the conventional returnable fish box of reducing the costs of losses, repairs, cleaning and transportation.

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WEA TECHNICAL PROGRESS

FRIERS, institutional caterers and major processors are all showing increasing interest in the possible exploitation of blue whiting as a partial replacement for the more traditional species, particularly cod.

The fish is found close to our own shores in the spring and there is growing evidence that significant catches can also be taken on more distant grounds at other times of the year.

One factor which makes blue whiting such an obvious choice is the similarity in taste to that of cod—in fact, few consumers can tell the difference. But there is more to acceptability than taste.

As the success or failure of the UK blue whiting programme will ultimately depend upon the housewife, the White Fish Authority (assisted by marketing consultants David Elliott and Associates), began a series of acceptability trials in 1975 to find out what she thinks about this new species.

The blue whiting used for the first series of trials were all frozen at sea during the April 1975 exploratory voyage of the stern trawler *Arctic Privateer*. The fillets obtained were readily accepted and no adverse comments were received. Also, apart from some remarks about the small size of the fillets and their off-white colour before cooking, the kitchen staff

led to distortion of the fish and deterioration during thawing. They were then laboriously filleted by hand, re-frozen in 5 and 7 lb. shrink-packs and stored for several months. Also, because the fish were not graded at sea, there was a wide size variation after filleting which gave rise to some problems.

A preliminary trial at Billingsgate market in May 1975 had demonstrated the unsuitability of gutted whole blue whiting for the fishmonger's slab. It was, therefore, decided to concentrate on investigating the acceptability of the filleted fish for the fish frier and for institutional catering use, and also carry out tests using a large number of randomly-chosen housewives as tasters.

The first institutional trials were carried out at hospitals in Wolverhampton, Birmingham, Sunderland and Newcastle in September and October 1975. At each hospital, blue whiting appeared on the staff dining room menus as "whiting" or, more simply, "fried fish", in place of the customary cod.

The fillets, weighing about 65g each, were deep fried in batter and, in one hospital, two fillets per portion were served. The price charged was the same as for cod.

The blue whiting was readily accepted and no adverse comments were received. Also, apart from some remarks about the small size of the fillets and their off-white colour before cooking, the kitchen staff

GETTING A TASTE FOR BLUE WHITING

were equally satisfied with the fish.

Following the hospital tests, more comprehensive trials involving four schools in the Cambridge and Lincoln areas commenced in February 1976. The aim of the trials was to obtain objective data on the acceptability of blue whiting as compared with cod when served in the same manner on alternate occasions.

Reaction from the school children was obtained by serving deep fried-skin-on fillets and checking the amount of fish returned uneaten. Results were very favourable, with a majority of servings being completely eaten. The only adverse comments were from the kitchen staff concerning the small size of the fillets and, occasionally, about the presence of bones from the dorsal fins.

Although it would be premature to draw firm conclusions regarding commercial

practicability, it can be stated that blue whiting fillets, deep-fried in batter, are readily accepted by both adults and children provided the fillets are as bone-free as possible and well-graded to ensure the maintenance of a fixed portion size.

The National Federation of Fish Friers has also shown strong interest in blue whiting and seven members of its executive council (with shops in Cheshire, Durham, Glamorgan, Lancashire, Northampton and Staffordshire) participated in a six-week trial during February and March this year offering blue whiting as a regular choice.

Initially, sales went quite well and most of the friers reported that blue whiting was enthusiastically received by their customers when sold at or marginally below (1 or 2p per portion) the price of cod. Although towards the end of the trial sales slowed

down somewhat, some regular trade had developed.

The main reason given for the decline in trade was that the remaining fillets were rather on the small side, although some friers overcame this difficulty by frying two fillets together skin-to-skin.

So, there is no doubt that blue whiting is also acceptable when sold by friers and that a trade can be developed, especially in those shops traditionally selling smaller portions. However, the future level of such trade will depend on the provision of graded fillets, preferably at the larger end of the range tested, and the price at which they can be made available.

The trial is now being continued with the 1976 season fillets, using the largest grade available in quantity (80-90g). Four of the shops now report a steady trade, amounting to about 15kg per week of raw fillets at a retail value of

around £2.00 per week when served.

In parallel with a series of hall tests were held in a further three locations (Bristol, Glasgow and Manchester), using blue whiting from the *Shemara* and *Hebridean* catches of spring 1976.

Whereas the 1975 catch was frozen whole at sea, the fish from the 1976 voyages were landed at Stornoway boxed in ice, or stored in chilled seawater containers. By eliminating the necessity for initial freezing at sea before the fish were gutted and hand filleted, better quality and more robust fillets were obtained.

Because of this and the fact that the colour of the raw fillet is an important factor influencing consumer choice, the 200 housewives taking part in each test were first asked to view blue whiting fillets raw on ice and raw in supermarket-type packs.

They were then asked to taste two samples of the fish, one grilled and one fried, each tasting being followed by interviews to determine their thoughts about taste, texture, colour, likes and dislikes, and likelihood to purchase to the visual reception to the raw fillets was better in the south than in the north. Of the Bristol housewives 30 per cent thought the appearance was very good, 51 per cent good, and a further 14 per cent rated it as fair. Only 6 per cent gave an assessment of not very good or poor.

The overall opinion was encouraging, with 72 per cent of the housewives rating the fish as fair or better—a significant result in view of the fact that they were eating only 11 per cent of the grilled fish and 35 per cent of the fried.

Each of the housewives later asked how they would be to buy blue whiting from the fishmonger or frozen from the supermarket. 47 per cent said they would definitely buy the fish, 31 per cent said they would probably buy it, and 21 per cent said they would not buy it.

In the case of the fish, 25 per cent would definitely buy it, 33 per cent thought they would probably buy it, and 42 per cent said they would not buy it.

Although there were some adverse comments about off-white colour of the fish, particularly in the samples, in all other respects the blue whiting was as acceptable as cod. It was considered a good market when available on a commercial scale.

As the blue whiting used for the first series of consumer trials was of prime quality, it was decided to carry out more extensive tests on the more variable catches available in July

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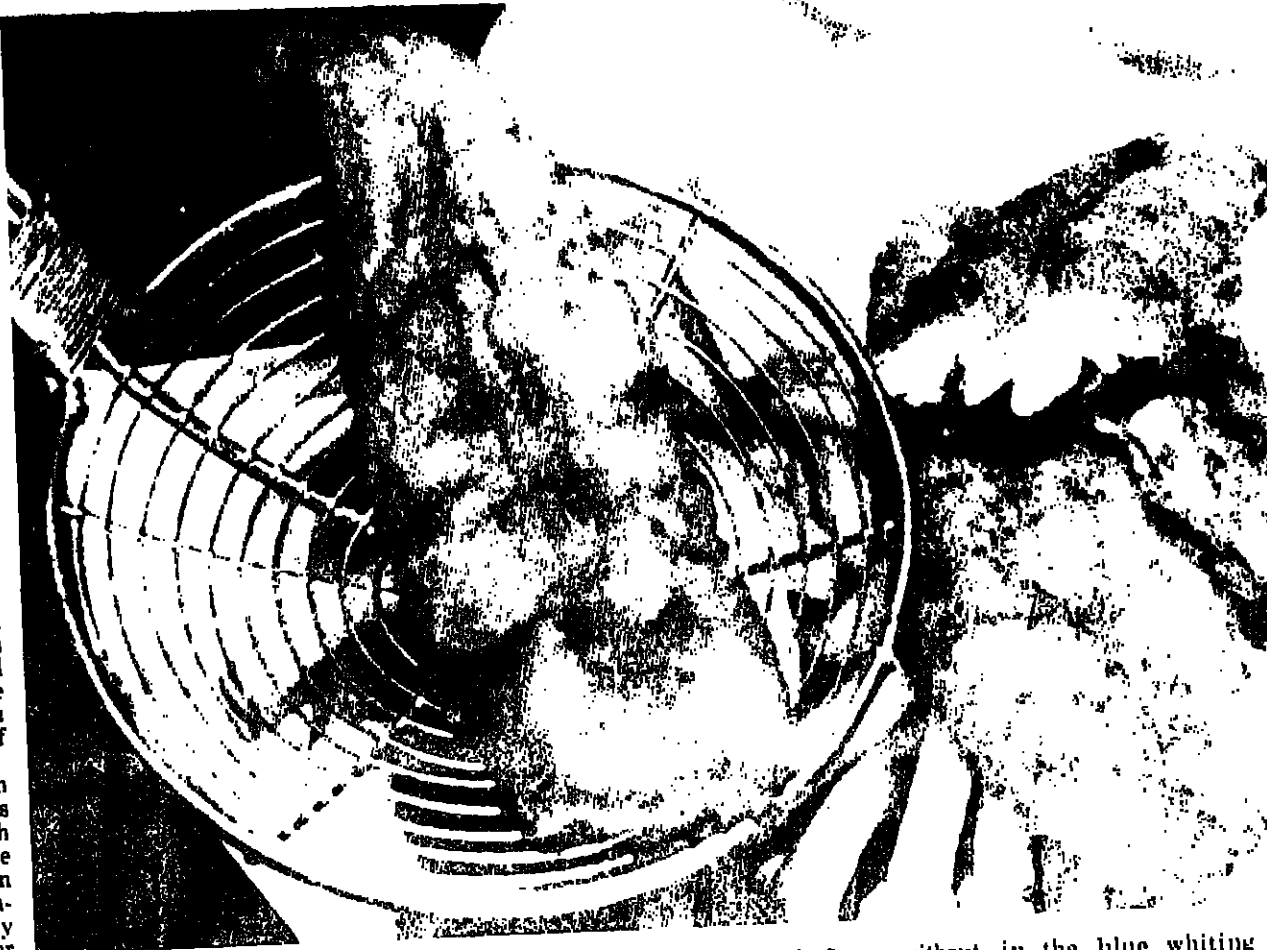
There is little doubt that with better catching and on-board handling techniques, and improved mechanical processing methods, blue whiting laminated blocks of commercial quality can be produced. When this is achieved it is then up to the major processors to take up the challenge of marketing this fish.

Given a positive approach, there is no reason why blue whiting fish fingers should not become as popular with the children of tomorrow as cod fingers are today.

After these trials, it is clear that blue whiting is acceptable to the British consumer, both in fillet form and as fish fingers, but that there is still room for improvement in quality, grading for fillet size and presentation.

The WFA is, therefore, to continue with its acceptability trials. In addition to the current expansion of the number of frier outlets, and catering trials in schools and hospitals to compare acceptability of blue whiting fillets and fingers with similar cod products, it is to develop suitable forms of frozen presentation (such as breaded block fillets or goujon style fillets) for sale through supermarkets and freezer centres.

One interesting side result



Above: customers come back for more blue whiting and chips. The fish sold at only a penny or two less than cod during trials.

Based on the high acceptability of cooked blue whiting, there is a strong argument for making the fish available as frozen fillets and blue whiting supermarket packs in freezer sections, particularly when coated with bread crumbs.

Freezing and packaging does alleviate some of the initial appearance problems, and crumbing the fillets would have the added advantage of covering the darker flesh until cooking produces a firm and whiter fillet. Trials with these products will be carried out in the near future.

whiting fish fingers without pinbones were compared with commercial cod fish fingers.

The results of the tests showed that less than one per cent of the housewives detected bones in the blue whiting fish fingers with pinbones while, rather surprisingly, three per cent noticed bones in the commercial fish fingers.

In all cases the bones found

in the blue whiting fish fingers were small and fine, and on the evidence of this trial their presence is sufficiently insignificant to question the need to make major modifications to incorporate pinbone removal in the processing equipment currently being developed. Further trials in school meals are planned to substantiate this finding.

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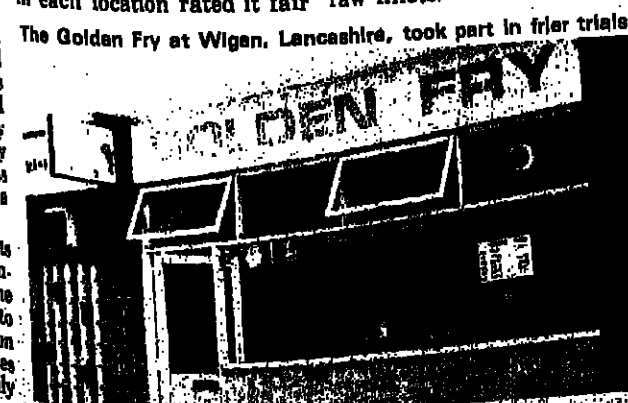
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Above: a housewife tastes fried and grilled blue whiting fillets during a WFA hall test. Of the 1,200 housewives who have tasted the fish to date, over 90 per cent rated it fair to excellent. Below: blue whiting fingers being tested. Less than one per cent detected the pinbones.



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FISH HANDLING, processing and marketing

FRESH - COOKED crabs are now being vacuum-packed for export to Sweden at the Newlyn, Cornwall, plant of W. Harvey and Sons.

The crabs have a life of four to five weeks when held at a temperature of 34 deg. F., or they can be deep frozen.

The Swedes demand only hen crabs which are carrying roe or coral. This builds up from August through to December and, so, fishing time for this market is limited.

Harvey can concentrate on cnek crabs during the rest of the year and they, too, are vacuum-packed and deep-frozen for sale through Billingsgate and Birmingham wholesale markets.

After cooking the crabs in the normal manner, they are individually wrapped in bleached microproof paper. The crabs are next placed into Resinite nylon-polyethylene pouches to which salted water is added.

Absorbed

In the vacuum packing process, the salted water is compressed or absorbed into the flesh of the crab. As a result, the crab meat remains moist.

A Multivac double-chamber vacuum packer with swing lid enables four crabs to be loaded in one of the chambers while the bigger crabs in the other side are being evacuated and sealed. This gives an output of four crabs every few seconds.

After vacuum packing, the crabs are passed through a pasteurising tank where the temperature is held at 80 deg. C. This process ensures the four to five weeks fresh life required by the Swedish importers. The crabs are now ready for final packaging and are boxed into 10 kilo cartons for despatch.

W. Harvey & Sons has dealt in live shellfish and cooked crabs for over 50 years.

'Long life' packs for Cornish crab



Above: crabs being packed into nylon-polyethylene pouches on the Multivac double-chamber machine at Harvey's of Newlyn. Below: fresh cooked crabs in the vacuum packs which give them a four-to-five week life at 34 deg. F. They can also be deep frozen.

Finning unit in demand

SOME 500 fish finning machines made by an Aberdeen firm are now in use at UK fish factories.

The machine, made by the Victoria Light Engineering Co. (Aberdeen) Ltd., first became popular in Scotland, particularly at Aberdeen which specialises in black fillets of small haddock and whiting.

A cut made behind the fish head is continued down either side of the backbone so that head and backbone are removed, leaving the two fillets joined down the back. It is therefore necessary to remove the fins before preparing the fillet.

The finning machine was invented in the 1940s by a Mr. Campbell of Aberdeen and, later, Victoria Light Engineering designed its own version. It has become the UK's biggest manufacturer of finning machines.

The finning unit is made of mild steel which is galvanised to prevent corrosion. A 1 hp single-phase motor is contained within the machine, with a pulley and Vee-belt drive to the main shaft.

The cutting blade is presented to the fish through a slot in the stainless steel lid, which has an adjustable guide

to vary the width of the slot. Processors outside Scotland are now appreciating the advantages of the black fillet, as it allows smaller fish to be served attractively.

There is now a big market for the finning machines in Ireland and interest is also being shown by Humber-side processors.

The Victoria Light Engineering Co. (Aberdeen) Ltd. is a small company founded in 1969 which manufactures a wide range of machinery for the fish processing industry.

Some of the first products from the firm included the finning machines and also filleting conveyors, but the scope was later widened to include the well-known Torry smoking kiln.

The bulk of the firm's products have been supplied to the Scottish and English markets but, recently, there have been inquiries for the Torry kiln from Canada and America.

The Torry kiln was developed by Aberdeen's Torry Research Station which still holds the patent, but Victoria Light Engineering is the sole manufacturer in Scotland.

In the early 1970s the firm

developed and patented the Autosmoke, which replaces the original hearths in which the smoke was produced.

These hearths had been fitted at one end of the kiln and the smoke produced from fires burning wood sawdust laid over wood shavings. However, the hearths were bulky and wasteful on sawdust.

The Autosmoke is built into the kiln, saving as much as 30 sq. ft. of factory space, and will burn any kind of fine sawdust. This is fed into a hopper and a continuous running turntable discharges the sawdust to the firebox.

The amount of sawdust being discharged can be regulated by a control lever and so allows the amount of smoke passing into the kiln to be adjusted. Otherwise, the design of the kiln remains similar to that developed by Torry.

Smoke led into the kiln through ducts and mixed with air is blown by fan over the trolleys of fish in the horizontal tunnel.

Some smoke escapes up a chimney, but the rest circulates and is mixed with fresh smoke and more air. Half-way through the

smoking process, the trolleys of fish are interchanged because those nearest the incoming stream of smoke dry more rapidly than the remainder.

The humidity of the warm smoke is controlled by adjusting the amount of fresh air entering the kiln, while the temperature is thermostatically-controlled.

Victoria Light Engineering makes different sizes of kiln to suit customers, but finds the 60-stone capacity model is the most popular. Various types of conveyors for use in processing lines are also supplied by the firm.

A typical model is the box-recycling type of filleting conveyor. Plastic boxes of washed fish are fed on to the supply belt, from which a filleter will pull a box into his own work space.

As he fillets the fish from this box, he places the fillets in his previous box which has been placed on a rack above. When this box is filled, it is placed on to a dispatch belt placed on to a weighing scale, which takes it to be weighed, etc. The box is then ready for re-use.

Another popular range of products is the galvanised metal and stainless steel gutting tables supplied in flat-topped or dipped top versions.

FISH HANDLING, processing and marketing

END OF BAIT 'BRIBERY'?

LOBSTER and crab fishermen everywhere seem to have a problem with bait — or rather with the link between the fisherman and the buyer who also supplies the bait.

All too often this can become a means of 'persuading' fishermen to accept a lower price, or find his bait elsewhere.

This can give fishermen a lot of time-consuming problems.

One exhibitor, at the American Fish Expo in Boston, mentions he has the answer with a formulated bait paste based on herring contained in a perforated plastic container. We've seen synthetic baits before, of course, but with a name like Finest-Kind Bait Division of Seapro Inc., this could be the one.

Asked what tests had been run, the firm replied that it prefers to use the experience of commercial fishermen who, it says, come back for more. But it would be happy to let a British shellfish laboratory run tests.

The bait comes in five-gallon plastic tubs and is claimed to stay effective twice as long as natural bait — and to cost less.

Storage life is unlimited as an anti-oxidant has been added, and the makers recommend that extra holes be drilled in the bait container for conditions of slow water currents.

STRONG PALLET

METAL BOX LTD. has teamed up with Bridgend Processes Ltd. to form a new company, Structural Thermoform, for marketing a new plastic-clad, steel-framed pallet.

Ideal for stacking fish boxes or ice blocks, these pallets are made from a welded mild steel frame covered in high density polyethylene. This gives them many of the advantages of aluminium or stainless steel at lower cost.

Called the ST range, it is claimed they are not affected by temperature extremes and

Tubs of American Finest-Kind lobster and crab bait.

product line

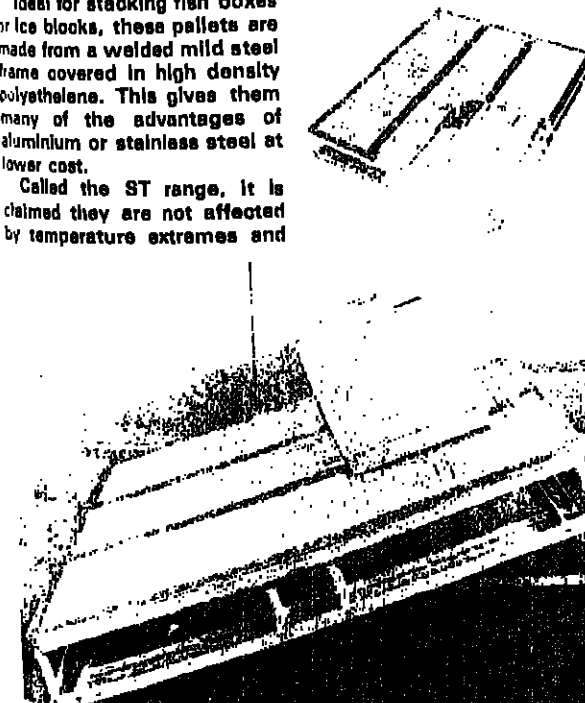
will not rot, warp or split. They do not absorb water and remain constant in weight.

Using the thermoforming process, the need for expensive moulds is eliminated as the pallets can be tailor-made to customer requirements. They are available with non-slip surfaces.

The pallets can be cleaned and sterilised by all the usual methods, including steam and high pressure disinfectant spray, wet autoclaving, ethylene oxide, and gamma radiation.

The price of the ST pallet will be around £20, depending on specification, which is about a quarter of the cost of stainless steel pallets.

For further information contact Structural Thermoform, Westmoreland Road, London NW9 9RR. Tel. 01-204-7278.



The Structural Thermoform pallet can have a non-slip surface. The inner steel frame is pictured above.

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1976

PACKS TO FLY FISH

WITH shellfish and prime flats valuable enough to warrant air transport, we could pick up a few tips from experts in places like Massachusetts and Nova Scotia.

Merchants have been air-freighting shellfish to Europe for years and they use strong, corrugated containers lined with expanded polystyrene which take up to 80lb. of live lobsters. The type TP2 is specially dimensioned for airline containers and, unlike the TP1, does not nest.

The TP initial stands for Teck Pak Inc., Massachusetts company which also supplies 're-usable ice' gel packs which can be pre-frozen and packed with the lobsters in place of ice, so eliminating melt water.

And here's an idea — special small packs which enable people to take home live lobsters from the coast — even by air, for the pack fits under an air-

Teck Pak's lobster packs can be cooled with 're-usable ice'.

craft seat! There is also a special pack for road haulage.

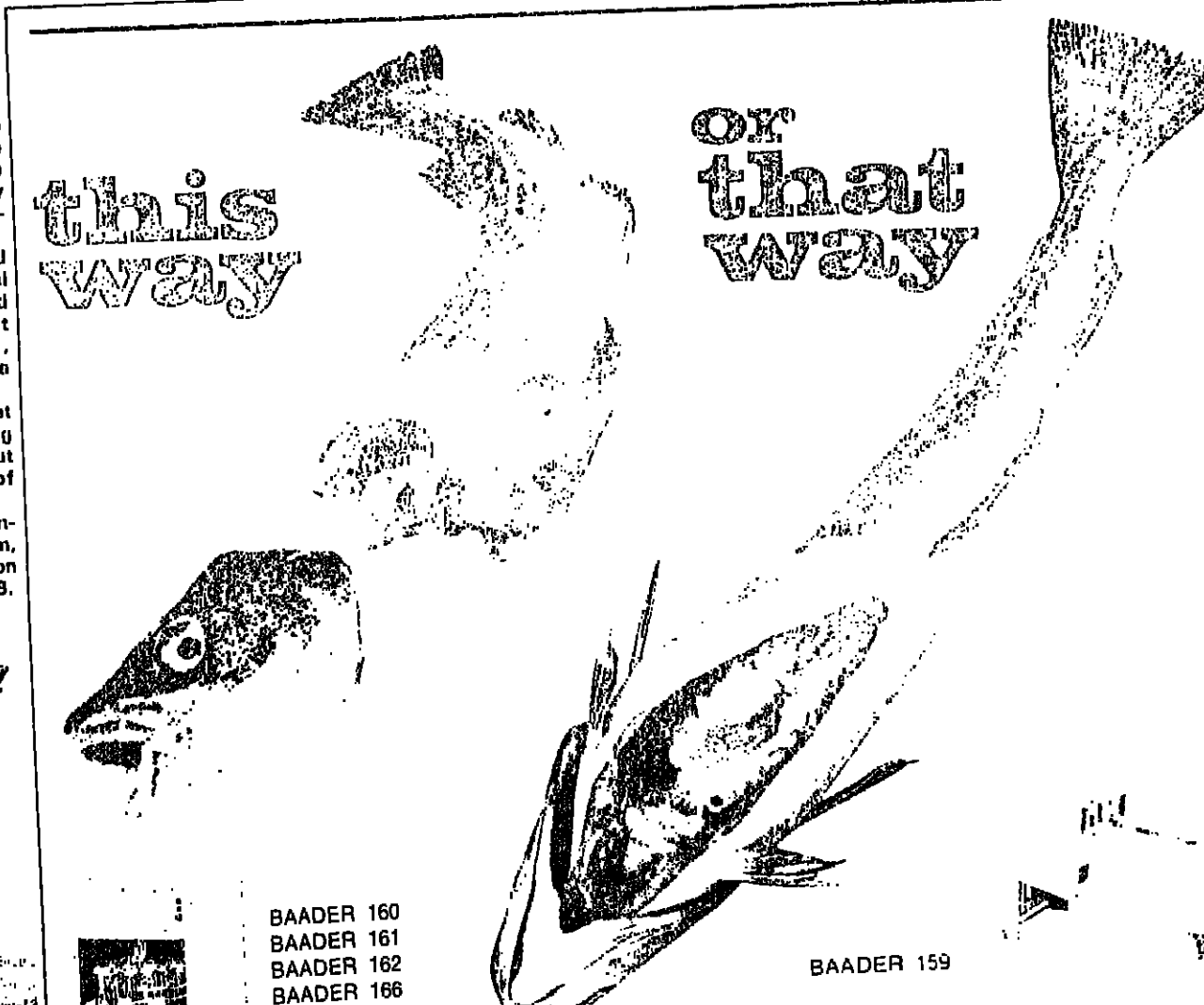
If anyone does adopt the take-home idea, how about proper cooking instructions, both for the benefit of the lobster and the consumer?

The system, named Halltherm Unicore, is modular so an entire plant can be moved and relocated by container lorries and straddle carriers and cranes.

Continued on page 16

CONTAINER FISH STORE

HALL-Thermotank of Dartford, Kent, has developed a



this way

or that way

BAADER 160
BAADER 161
BAADER 162
BAADER 166

BAADER 159

Gutting

without throat cut or with throat cut, head on or head off, on the other hand the heading cut in different variations: — with adhering collar bones or with separated collar bones. For all cutting methods BAADER has the right gutting machine.

BAADER 159 guts without throat cut. It was designed as a gutting machine only, robust, simple and appropriate.

BAADER 160 and BAADER 162 gut with throat cut in different ranges of fish sizes. Both machines are also capable of heading by means of the round cut, the collar bones remain at the fish. Another type of machine removes the head together with the collar bones prior to gutting by one straight cut, that means throat cut and heading cut in one operation, then the machines are called BAADER 160 and BAADER 161.

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FISH HANDLING, processing and marketing

From page fifteen

The central engine room, withdrawn. Up to 12 compartments the refrigerated trailers can be connected to machinery and controls, in each duct module — six on fitted inside a steel structure each side.

From the air coolers, located on each side of the engine room, duct arms comprising lengths of insulated twin ducting arranged one, two or three high, circulate cooled air to and from refrigerated containers connected to the system.

Steel cradles, each 40ft long, house the insulated ducting which is fitted with appropriate inlet and outlet couplings for cooling multiple containers attached on either side of each duct arm.

The system can be controlled manually from the processing fish and fish engine room, or remotely by the products designed to customer Heltham Reddon electronic system.

The air ducts have the pneumatic shutters which Thermotank International Ltd., automatically seal the Home Gardens, Dartford, Kent couplings when a container is

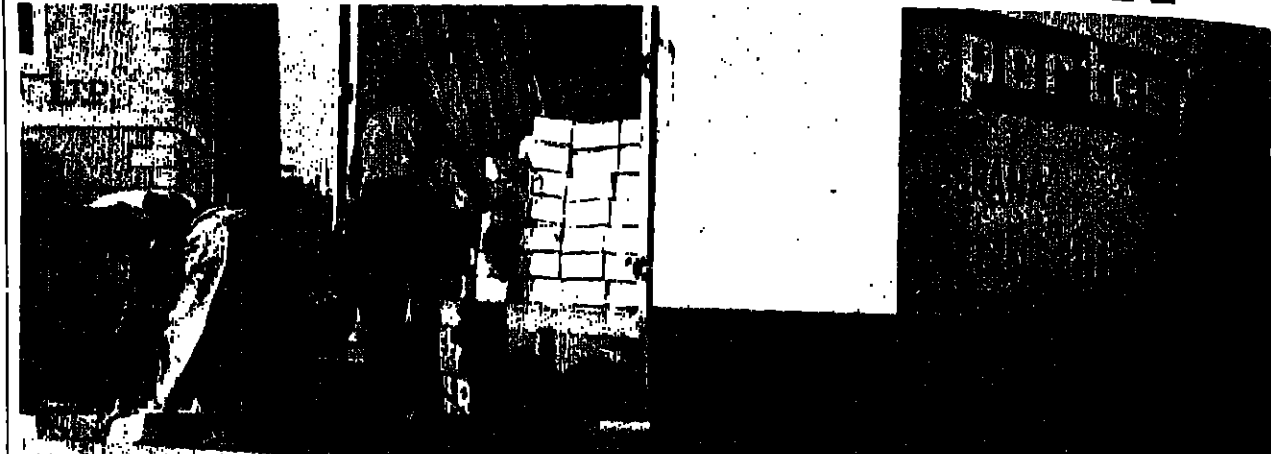
Duct modules can be coupled end-to-end. A range of system sizes is available which can take from two to 72 containers from one engine room.

Apart from the straddle carrier drivers, the plant is unattended, with connection of the containers and temperature settings, etc., carried out remotely by a controller in radio contact with the drivers.

The Unicores system can be mounted between decks or on the main deck of many cargo vessels and, the company says, it can supply shore-based installations for storing and processing fish and fish products designed to customer requirements.

For further information on the system contact Hall-pneumatic shutters which Thermotank International Ltd., automatically seal the Home Gardens, Dartford, Kent couplings when a container is

CUTTLES FOR SPAIN



FISHERMEN at Plymouth have been cashing in on the Spanish market for cuttlefish. Lorries from Spain have been regular callers at the Barbican this year and fishermen have been getting between £1.60 and £2 a stone for unwanted fish.

There's a profit in unwanted fish

BRITISH trawlers catching redfish could earn a profit — even though the market doesn't want them. This is just one crazy example of the "outmoded" EEC fish marketing policy, says Austen Laing, chairman of the Fish Producers' Organisation.

Under the pricing proposals for next year, British fishermen could catch redfish, which are more plentiful than cod but largely rejected by the British consumer, and get up to 70 per cent more for them in EEC compensation than they could by selling them at quayside auctions.

This anomaly has been pointed out to Agriculture and Fisheries Minister, John Silkin, to underline the impossibility of having a uniform pricing system for European markets.

In "what is now almost a ritual annual protest by all European fishermen", Mr. Laing said: "We have pointed out to the Minister that we are in the business of selling fish as well as catching it so

we would not fish redfish for compensation, but it does provide a good example of some of the absurdities of the EEC's marketing policies.

"Redfish is given a high official withdrawal price at auction, below which it qualifies for EEC compensation, because the price is determined by the German market where it is highly prized and commands far more than it could ever raise on a British quayside.

"The most damaging aspect of the pricing system, however, is that the official withdrawal prices have historically been well below prevailing market levels and the minimal increases the

EEC proposes each year are designed to keep them that way.

"This imposes an artificial restraint on quayside prices, particularly in respect of imports where the reference price (below which imports can be banned) is linked to the withdrawal price.

"While other factors have played a part, it is this artificial restraint which has allowed imports to undermine our quayside market and make a major contribution to the severe contraction of the British fishing fleet in the past three years," says Mr. Laing.

Fish plant plans

THREE applications have been made to set-up fish processing plants at the little Sutherland port of Helmsdale.

Partners Neil Gibson and Ian Irvine of Saltcoats, Ayrshire, have been given the

go-ahead from the Scottish Economic Planning Department to establish a £55,000 seafood factory in Helmsdale.

Alexander Jappy and Sons Ltd., Craiglea, Helmsdale, which also operates in Caithness, wants to use a burned out building in Shore Street, Helmsdale, as a freezing and processing factory for shellfish.

Hopes of a substantial extension of white fish processing in the village are based on the application of John Jappy (22).

He started work in his mother's fish shop beside their home when he was 15. The business has expanded and they now buy all the fish from four local boats which they send to centres such as Aberdeen and Glasgow.

It is now John Jappy's object to acquire the old hall next door from the Ministry of Defence, where he would start processing white fish-filleting, smoking, freezing and packing for export. He intends to employ four people.

'Vanishing' fish

THEFTS OF Grimsby fish are on the increase again. This time the trouble spots are not on the pontoon, but often hundreds of miles away from the Humber port.

It seems that the increased emphasis on the industry by television and national newspapers, following the islandic withdrawal, has attracted the attention of a criminal element outside the industry. This had led to a spate of thefts at wholesale outlets all over England and Wales.

The 'vanishing' fish is being stolen following the delivery by road direct from Grimsby, which is usually made during the night and often to unattended premises.

In an effort to curb these thefts, Grimsby Fish Merchants' Association is recommending its members to advise individual customers to install lock-up cages so deliveries can be made in relative safety.

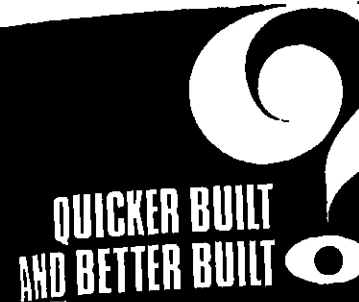
New 'King Frost' boss

JOHN B. CROOK has been appointed managing director of Associated Fisheries and Foods Ltd., the 'King Frost' frozen food subsidiary of Associated Fisheries.

Mr. Crook (44) joined AF&F in 1968 and became

production director of the company. He is a past president of the European Fish Processors' Association and represents the UK frozen food industry and an EEC Fisheries Advisory Committee.

December 24/31, 1978



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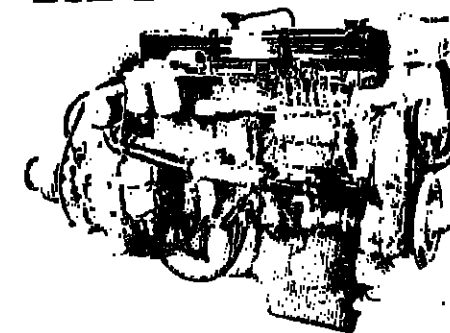
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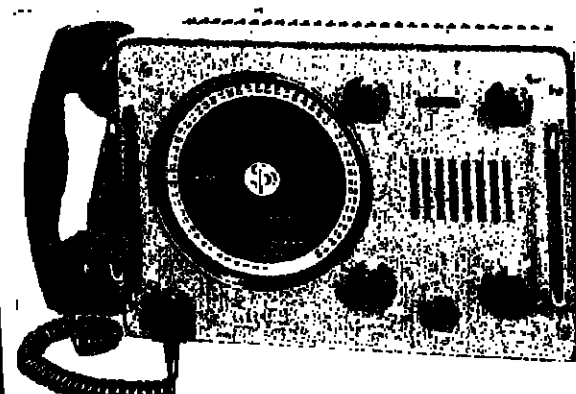
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December 24/31, 1976

THE 68 FT. wooden-hulled pair trawler *Jean Scott* has been built at the Lossiemouth yard of Jones Buckle Shipyard for owners in Grimsby.

She is for Riverside Trawlers Ltd., a company formed by a consortium of four Grimsby-based skippers: Jens Bojen, Phil Scott, Pete Pulfrey and Bill Sate.

Skipper Phil Scott will take command of *Jean Scott* to fish in partnership with Skipper Pete Pulfrey in the former Scottish vessel *Golden Venture*. Agents for the new vessel will be John R. (Fish Salesmen) Ltd. of Grimsby.

Originally the new pair team had planned to put in a full fishing trip, landing just before Christmas, but the trials were delayed from Lossiemouth and Buckle by bad weather.

Eventually the pair did succeed in getting off and managed to put in a mini-trip, just to wet the nets, before arriving in the small hours of December 17 at Grimsby. *Jean Scott* and *Golden Venture* made a combined grossing of £7,086 from 219 kits on rather a quiet Friday market.

Jean Scott is very similar to the highly-successful *Margrethe Bojen* which Jones' Buckle yard built earlier this year for Skipper Jens Bojen and partners.

Engine

Hull lines are identical and they are of similar layout, carrying the same type of winch and net hauler.

The main difference lies in the choice of main engine. *Jean Scott* is powered by a Gardner unit turning a fixed-pitch propeller, while *Margrethe Bojen* was fitted with a Kelvin 280 hp engine driving an adjustable pitch propeller.

The lines of *Jean Scott* and *Margrethe Bojen* are similar to those of a vessel built three years ago by Jones Buckle for Skipper Bojen, Frances Bojen.

This craft had been designed by naval architects, G. L. Watson and Co., following consultations with Skipper Bojen.

The design incorporates quite full lines, which has given *Jean Scott* a carrying capacity similar to that of larger vessels, in addition to providing excellent stability and sea-keeping characteristics.

With an overall length of 68ft. and beam of 20ft., *Jean Scott* is of cruiser-stern design and has a tonnage under Part IV registry of under 50 tons.

The Gardner 3L3B engine develops 230 hp at 1,150 rpm and drives the Bruntons Superpropeller through a Twin Disc 4:13:1 reduction and reverse gearbox and Henry Fleetwood and Sons stamper.

Belt-driven off an extension shaft at the fore end of the engine are a Desmi SA40 bilge and general service pump, two Transmotor ACG500 X 24 V generators and the hydraulic pump for the net hauler.

Auxillaries

The Norwich hydraulic pump for the trawl winch is driven directly off the extension shaft, through a broad-hunt 14 in. twinplate clutch.

A two-cylinder air-cooled Lister auxiliary engine of about 13 hp drives another Desmi SA40 pump and a Transmotor ACG155 24 V generator.

A total of 2,000 gallons of fuel oil are carried in four tanks in the engine room. Layout of the deck allows

PAIR TRAWLER ON 'SUCCESSFUL' LINES



the gear to be worked from port or starboard. A Norwinch TV8 nine ton low-pressure hydraulic trawl winch lies athwartships, forward of the deckhouse.

One Lossie Hydraulics net hauler is fitted on the starboard rail, although it is planned to fit a similar hauler on the port rail later.

Conventional trawl galleys are fitted forward, but the after towing blocks are hung from a stout steel gantry mounted across the after end of the deckhouse.

Central

Two towing rings are fitted in the deck aft of the deckhouse. These allow the warps to be towed from a more central point.

From the towing rings, chains will lead out through hawseholes in the bulwarks and will be attached to the warps.

Below deck *Jean Scott* is of

traditional layout, with the cabin lying aft of the engine room, but there are two fishrooms. The forward one has a capacity for some 160 kits and the after one, about 550 kits. Both have steel stanchions and wooden boards and shelves.

Watertight steel insulated bulkheads are fitted at the after end of the forepeak and the three hatches, one over the forward fishroom and two over the after one, have insulated coamings and covers and hinged aluminium lids.

Domestic fresh water is carried in a tank below the forward fishroom. The aluminium whaleback is enclosed at its after end by an aluminium bulkhead. This not only serves as a stability feature, but prevents anything being stolen from below the whaleback or the forepeak. The foremast is of aluminium, while the deckhouse and other masts

and spars are made of steel. Fish finding aids in the wheelhouse comprise two Kelvin Hughes MS44 echo sounders and Simrad SL sonar with CM sonarscope. The sonar will be invaluable for use when fishing around wrecks.

Communications equipment includes Sallor esb radio telephone, RT 144 vhf radio telephone and R108 entertainment receiver, and an Amplitan 9000 hailing system.

Navigation aids include Decca Mk. 21 Navigator, 350 autopilot and RM914A radar, and Tenford steering gear.

The galley, aft of the wheelhouse, is fitted with a Radford gas oven, Neptune gas rings and Vaillant water heater. Of Danish make, the two gas rings have adjustable clamps to hold kettles and pans in position.

A separate messdeck is fitted below the wheelhouse, and a deep freeze cabinet is positioned forward under the whaleback.

Other equipment includes a Noack searchlight, Fasborg hand bilge pumps, and Morse engine and winch controls.

Jean Scott is to work with a total crew of six, including one apprentice fisherman, using white fish pair trawls of Danish make.



Above: Skipper Phil Scott's new command, *Jean Scott*, pictured on trials from her builders yard at Lossiemouth. She is the largest boat from the yard for many years.

Right: bow shot of *Jean Scott*. The 68-footer has hull lines by G. L. Watson and she is similar to *Margrethe Bojen* and *Frances Bojen*. The new boat will work with a crew of six, including apprentice.

Two new cats for fishing

GOING into production is a 40 ft. long catamaran which offers a clear deck platform making it suitable for a variety of fishing layouts.

The *Carry Cat* has been developed for the commercial market for use inshore. The twin-engine prototype has symmetrical hulls made of cold moulded wood, but production models will be in GRP.

Each engine is independent within its own hull. Separate

fuel tanks will be moulded in and the prototype's air-cooled engines produce a total of 118 hp at 2,200 rpm to give *Carry Cat* a speed of 11 knots in the light condition. The engines drive through clutches to Dowty jet drive units.

Access to the engines and jet units is via flush hatches in the deck and large hatches allow for easy engine removal. The prototype has a steering position on the starboard side and this can be enlarged

into a full wheelhouse if required.

With its eye on the export market the builders, Groves and Gutteridge Ltd., Vectis Yard, Cowes, Isle of Wight.

The Russians, who have operated a giant distant water catamaran trawler, are moving inshore with a new 63-footer able to work bottom and twin trawls over the stern, a Danish seine and long lines.

The craft will fit into a standard container or on to a lorry, which will make them particularly suitable for use on inland lakes.

Price of the standard *Carry Cat* is £27,000. Further

details can be obtained from Groves and Gutteridge Ltd., Vectis Yard, Cowes, Isle of Wight.

The general arrangement and form of the two hulls is designed for good sea-keeping performance, to allow gear to be stowed on deck and enable accommodation and service spaces, cargo holds and machinery spaces to be arranged in the superstructure and hulls.

A simplified hull form with single-curvature surfaces at the fore and aft extremities has been designed to ease repair.

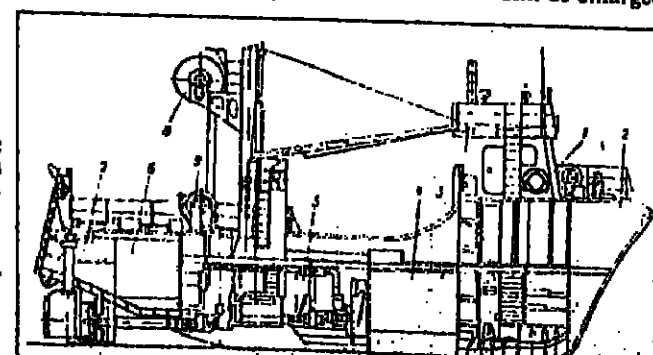
The vessel, designed to work up to 50 miles from port, has two symmetrical hulls interconnected by a

bridge structure, with a semi-ramp arranged aft for hauling the cod end on deck.

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General arrangement of the new-class Russian small catamaran fishing vessel. 1, wheelhouse; 2, forepeak; 3, accommodation spaces; 4, fishroom; 5, machinery space; 6, warp hold; 7, afterpeak; 8, net recovery winch; 9, trawl winch.

Below: the prototype *Carry Cat*. The 40-footer has a vast deck area.



December 24/31, 1976

'CARS MORE IMPORTANT THAN FISH'

FOREIGN vessels fishing in the Norwegian 200-mile zone will soon be registered and controlled through a computer centre at the Fisheries Directorate in Bergen.

The Norwegian Government has asked the Storting (Parliament) to vote 1.55 million kroner (about £100,000) on the 1977 budget towards the cost of the scheme.

Foreign vessels allowed to operate in Norwegian waters will be required to report to the Directorate before fishing, giving name, registration number, size, type of gear, name of skipper, planned area and duration of operations, and the size of quota which has been allotted. The Directorate will then pass the data to the fishery patrol service.

During the course of fishing the foreign vessels will be required to provide continuous reports to the Directorate on their position and progress of catching. The computer centre will be used to register Norwegian vessels operating in the zones of other countries.

It had always been thought by the industry that successive governments considered them expendable, he said. It was obvious that the industry's importance was considered to be insignificant and sacrificed at the expense of the car industry, or similar industries, and generally considered more important world trading.

Mr. Middleton added that a 60-mile EEC limit round the UK coast was essential for the survival of the industry and more important of fishermen and support workers.

He said it was deplorable that other countries, not the least our own fellow members of the Common Market, had plundered their own fishing grounds by industrial fishing and over-fishing generally and then turned to do the same in the prolific fishing grounds around our coast.

A clear example of this was Iceland when several years ago they had ruined their own herring industry.

After they have plundered UK grounds, Iceland states that the UK had very little

reciprocal fishing to negotiate with when, knowing that at the UK expense, they had a chance of prolific herring fishing once again off their own coast.

This is the difficult, difficult, line our so called friends were taking with us in the EEC regarding renegotiating of the CFP.

This is ironic, but understandable, when one considered that they had virtually nothing to give to the UK as far as fishing was concerned, but everything to gain, he said.

Mr. Middleton knew that the fishermen had to accede to the Government's requests to support the interim agreements in the form of quotas, etc., when fellow nations had disregarded it partially or completely.

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Sinking sparks off full-time disaster fund

NEARLY £20,000 has been raised for the dependants of the men lost in the *Corrig Una* trawler disaster off Donegal. So far, only the body of the shipper, 28-year-old Ted Carberry, has been found.

Brian Love, of the Irish Fish Processors' Association, who is chairman of the organising committee, said the money would not

be used merely to help those who had been affected by the recent tragedy, but as the basis for a permanent fund for future disasters of this type, should they occur.

He said there might be need for the Government to introduce legislation making it compulsory for boat owners to have comprehensive insurance covering the safety of the crew.

At present, the only requirement is that laid down by Bord Iascaigh Mhara (BIM), which demands insurance cover on the vessel when advancing mortgages for purchase, but Mr. Love was critical of the Government for the minor role it accorded to fisheries and he also criticised the insurance companies for failing to sell insurance to boat owners.

Target for the fund is £500,000.

Hull landings

THE THREE distant water trawler landings at Hull on Monday were all White Sea trips.

Marr's *Benella* (Skipper J. Long) topped the market by making £48,196 for 1,618 kits after a 26 day trip.

But's *Kingston Pearl* (Skipper R. Turner), out for 25 days, grossed £46,375 for 1,582 kits, while BUT's *Kingston Beryl* (Skipper K. Shakesby), also out for a similar period, made £33,538 for 1,143 kits.

Target for the fund is £500,000.

Lobster measure urgent

SIR, I was very pleased to see the report (Shellfish Club December 10) of Don Loudon's paper on the lobster fishery on the north east coast.

The area to which he refers coincides to a large extent with that of the North Eastern Sea Fisheries of which I am vice-chairman. Much of what he says is very true and it is good to see the subject getting publicity.

The North Eastern Sea Fisheries Committee has recognised that the area has been overfished for many years. As long ago as 1980 we began a campaign for more rational use of the resources.

The Ministry of Agriculture, Fisheries and Food has, during the last few years, done a considerable amount of research on the lobster fishery in Yorkshire waters.

As representative of the Association of Sea Fisheries Committees, I was able to express our views to the Ministry as recently as November this year. I believe that the Ministry is now convinced that what we have been saying for so long is in fact true: stocks do need more protection. The thing of the legislation is still an issue.

In my view, speaking of the NESF area, I believe that the necessary protection is a matter of extreme urgency and I also believe the lobster fishermen accept this.

My personal, and often expressed, opinion is that the most efficacious improvement to conservation measures would be to increase the minimum size to 85 mm. This would give a fairly high percentage of female lobsters in year of sexual maturity in which to breed before they are caught.

It is ridiculous that we do not at present legally protect any breeding females. I meet many fishermen who frequently find and take young lobsters, and they haven't

LETTERS

With regard to the question of licensing, I agree wholeheartedly with Mr. Loudon that all lobster fishermen should be licensed.

To be fair to the Ministry, it is only just to point out that they offered to bring in legislation for this purpose two years ago, but this was unanimously rejected at public meetings in Alnwick and Scarborough. This was because the Ministry

refused to make the issue of licences restrictive. Whilst one understands the fishermen's point of view, it seems a pity that the offer was not accepted. At least it was a move in the right direction.

Among other reasons, a licence which could be revoked for breaking the law would have been a major weapon against the evil-doer and a better deterrent than any fine.

Turning to the problem of part-time fishermen, it is my opinion that the major reason the professional fishermen are so bitter against this element is because, as Mr. Loudon says,

they appear to pay no tax. As a class I suggest that they are probably not much more likely to break the law than some of our professionals. There are always some unscrupulous people in every class.

I believe they should be allowed to fish only a limited number of traps, but this is a purely economic suggestion, in order that there should be more lobster for sale to the professionals and has no pretence of being a conservation measure.

In case Mr. Loudon has given the impression that part-time fishermen are outside the law, let me hereby warn them that the officers of the NESF are vigilant and doing a good job. Full-time and part-time fishermen, hoteliers and skindivers all have good reason for knowing this in recent months.

Our officers would not wish to claim that they have 100 per cent success, but neither should that in the recent past have Scotland Yard. To my knowledge they are not averse to watching all night when need arises. They make frequent visits to ports and landing places, both evenings and week-ends.

I agree with Mr. Loudon that, by rationalising, we can maintain and increase the very valuable fishery from our grounds, but I would be very satisfied if the increase was of the order of 25 per cent to 50 per cent. The four or five times increase, which he suggests, seems to me altogether too optimistic.

Such examples of foreign flouting of regulations are endless and the British fishing community's only real hope must be to continue to press Grimsby.

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refused to

Catches and Prices

TOP LANDINGS LAST WEEK

GRIMSBY

253,736: Ross Revenge, BUT (Sk. J. Meadows), 1,684k, WS, 24 days.
245,111: Lord Jellicoe, BUT (Sk. W. Sate), 1,411k, WS, 25 days.
239,926: Port Vale, Consol (Sk. P. Blaney), 1,234k, WS, 24 days.
239,078: William Wilberforce, Boston (Sk. T. Evans), 1,206k, WS, 25 days.
237,519: Barnsley, Consol (Sk. M. Smith), 1,201k, WS, 24 days.
236,096: Boston Halifax, Boston (Sk. R. Evans), 1,133k, WS, 25 days.
236,077: Ross Kelly, BUT (Sk. P. Phillips), 1,137k, WS, 23 days.
235,848: Northern Reward, BUT (Sk. E. Hall), 1,185k, WS, 23 days.
234,923: Gillingham, Consol (Sk. J. Loades), 1,080k, WS, 24 days.
231,080: Aldershot, Consol (Sk. D. Ferand), 1,099k, WS, 24 days.

Middle water

216,276: Nanao, Taylor (Sk. G. Hughes), 617k, F/W, 18 days.
216,166: Ross Tiger, BUT (Sk. D. Avery), 766k, W, 17 days.
214,683: Ogano, Taylor (Sk. G. Drewery), 418k, F/W, 18 days.
213,820: Ross Cheetham, BUT (Sk. T. Ross), 706k, W, 15 days.
213,767: Ross Lynx, BUT (Sk. D. Cooper), 617k, W, 15 days.

North Sea

27,295: Lemberg, Lindsey (Sk. H. Pexman), 176k, NS, 14 days.

Seiners

25,702: Anne Scott, Allard Hewson (Sk. L. Dam), 193k, NS, 17 days.
24,254: Gladness, Allard Hewson (Sk. J. Olsen), 138k, NS, 15 days.
23,951: Nordland, Allard Hewson (Sk. M. Dam), 28k, NS, 10 days.
23,797: Elise Rieger, Sleight (Sk. E. Mork), 28k, NS, 12 days.
23,577: Stremoy, Sleight (Sk. M. Hansen), 33k, NS, 13 days.

Pair teams

24,252: Golden Venture, (Skipper Peter Pulfrey), 136k, and 23,834:

Jean Scott, (Skipper Phil Scott), 84k, both John R., NS, 5 days.

HULL

266,105: Lord Nelson, BUT (Sk. N. Longthorpe), 2,083k, WS, 26 days.
253,998: Lord St. Vincent, BUT (Sk. A. Osler), 1,709k, WS, 26 days.
244,865: Somerset Maugham, Newton (Sk. R. Taylor), 1,387k, WS, 26 days.
242,529: Arctic Corsair, Boyd (Sk. C. Pitts), 1,272k, WS, 26 days.
235,429: Kingston Amber, BUT (Sk. K. Nielsen), 1,236k, WS, 26 days.

FLEETWOOD White Sea

231,507: Luneda, Marr (Sk. W. Reader), 973k, 23 days.

Home water

29,766: London Town, Hewett (Sk. P. Weirman), 321k, 15 days.
29,764: Admiral Hauke, Hewett (Sk. J. Kirby), 442k, 15 days.
29,389: Royalist, Hewett (Sk. J. Pickess), 308k, 13 days.
28,728: Boston Sea Hawk, Bloomfield (Sk. J. Brackenbury), 315k, 15 days.
28,125: David Wilson, Hazael (Sk. J. Banks), 339k, 12 days.
28,204: Susan Bird, Bird (Sk. D. Reader), 234k, 15 days.
25,327: Forads, Ward (Sk. W. Phillips), 163k, 12 days.
24,877: Marrie Jacob, (Irish) 84k.
23,658: Resilience, Ward (Sk. D. Baily), 128k, 13 days.
23,357: Fair Isle, Ward (Sk. J. Wright), 117k, 13 days.
21,552: Peter Loumand, (Sk. A. Vickers), 62k, 13 days.
21,282: Thornwood, Hewett (Sk. V. Jensen), 44k.

ABERDEEN

223,748: Clarkwood, Wood Group (Sk. T. Taylor), 763k, F, 14 days.
215,083: Lindenlea, BUT (Sk. W. Uren), 933k, F, 12 days.
214,026: Carency, G. Wood (Sk. R. Johnston), 568k, O, 8 days.
212,137: Grampian Falcon, BUT (Sk. F. Steele), 520k, WS, 12 days.
212,022: Ross Kittiwake, BUT (Sk. A. Banks), 569k, WS, 12 days.

210,840: Leswood, Wood Group (Sk. R. Walker), 372k, F, 15 days.

LOWESTOFT

210,736: St. Mark, Colne (Sk. J. Kelly), 288k, NS, 15 days.
29,738: Oulton Queen, Talisman (Sk. A. Hutchinson), 195k, NS, 13 days.
29,654: Suffolk Monarch, Small (Sk. B. Berrett), 218k, NS, 13 days.
29,510: Boston Sea Knight, Boston (Sk. A. Lincoln), 189k, NS, 13 days.
28,604: Chudleigh, Putford (Sk. G. Wilson), 184k, NS, 13 days.
28,428: St. Thomas, Colne (Sk. J. Ketteringham), 222k, NS, 12 days.

GRANTON

219,066: Arctic Riever, Liston (Sk. A. Wanless), 744k, F, 14 days.
214,072: Arctic Hunter, Liston (Sk. A. Wood), 716k, WC, 13 days.

NORTH SHIELDS

210,793: Ben Glas, Irvin (Sk. R. Shearer), 29,024k, NS/F, 13 days.
26,490: Sedulus, A.F. (Sk. R. McBain), 11,777k, NS, 5 days.
24,887: Nimrod, A.F. (Sk. R. Casso), 8,800k, NS/F, 12 days.
24,400: Star Devine, A.F. (Sk. J. Vanko), 9,180k, NS, 4 days.
23,768: Valhalla, A.F. (Sk. R. Vietch), 10,700k, NS, 4 days.
22,654: Ina McBain, A.F. (Sk. J. Fleming), 7,978k, NS, 4 days.
22,000: Fruitful Harvest, A.F. (Sk. C. Horn), 6,150k, NS, 4 days.
24,38: Starella, Irvin (Sk. T. Johnson), 900k, NS, 3 days.
23,1: Border Star, Irvin (Sk. R. Crawford), 1,606k, NS.

MILFORD HAVEN

25,668: Jadedart Gypsy, Jones (Sk. J. Brodie), 144k, IS, 14 days.
25,200: Rosevear, Norrard (Sk. A. Simpson), 132k, IS, 13 days.
25,200: Bryher, Norrard (Sk. A. James), 128k, IS, 14 days.
24,048: Norrard Star, Norrard (Sk. J. Manson), 157k, IS, 7 days.
23,060: Picton Sealion, Norrard (Sk. T. Salter), 128k, IS, 5 days.

KEY: I: Iceland; F: Faroe Islands; W: West of Shetland; NS: North Sea; WS: White Sea; NC: Norway Coast; HW: Home Waters; IS: Irish Sea; S: Shetland; Sk: Skipper; k: kilo; c: cwt; kg: kilo.

FRASERSBURGH

Prices: cod and codling, 218/222; haddock, 219/228; gutted whiting, 210/215; round whiting, 25.50/210; per box, small plaice, 21; large plaice, 22/25.50; small sole, 25.50; large sole, 27.50; monkfish, 230; dogfish, 22.50/25; per stone, 300 boxes landed, 500 being cod.

PETERHEAD

Prices: cod and codling, 22.70/23.20; gutted whiting, 21.70/22.40; small round whiting, 21.50/21.80; monkfish, 23.70/23.90; coalfish, 21.80/21.90; ling, 22.10/22.30; whiting, 21.70/21.80; hake, 27/28, per stone, haddock, 21/22, per box, 2,004 boxes landed, six boats.

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HERRING REPORT

WEDNESDAY, DECEMBER 15

Stormy: one drifter, three tonnes; one trawler, three tonnes; one purse, four tonnes; homemarket, three tonnes at 21.80/21.90; klondyke, seven tonnes at 21.80/21.90. Uniform to mixed in size, 380/430 per 50kg. Ulapool: six trawlers, 33 tonnes; homemarket, 33 tonnes at 21.80/21.90. Mixed spents, 370/500 per 50kg. Uig: one ringer, 13 tonnes; five trawlers, 30 tonnes; homemarket, 43 tonnes at 21.40/22.0. Uniform to mixed in size, 290/630 per 50kg. 13 trawlers, 140 tonnes; homemarket, 153 tonnes at 21.2/22.1. Uniform to mixed in size, 300/500 per 50kg. Oban: six trawlers, 62 tonnes; homemarket, 62 tonnes at 22.30/22.80. Uniform spents, 280/290 per 50kg. Ayr: six trawlers, 34 tonnes; homemarket, 34 tonnes at 21.8/21.7. Hand selected.

THURSDAY, DECEMBER 16

Stormy: three drifters, five tonnes; six trawlers, 39 tonnes; homemarket, one tonne at 21.6; klondyke, 43 tonnes at 21.80/22.0. Uniform to mixed in size, spent, 370/580 per 50kg. Ulapool: seven trawlers, 36 tonnes; homemarket, 36 tonnes at 21.8/22.0. Slightly mixed to very mixed in size, 370/580 per 50kg. Uig: one ringer, 10 tonnes; four trawlers, 45 tonnes;

FRIDAY, DECEMBER 17

Stormy: one trawler, three tonnes; klondyke, three tonnes at 21.8. Uniform spents, 300 per 50kg. Ulapool: 14 trawlers, 84 tonnes; homemarket, 84 tonnes at 21.5/21.1. Slightly mixed in size, 350/500 per 50kg. Mallaig: eight trawlers, 50 tonnes; homemarket, 50 tonnes at 21.50/22.50. Slightly mixed to mixed in size, 360/440 per 50kg. Oban: one trawler, five tonnes; homemarket, five tonnes at 21.8.0. Uniform spents, 300 per 50kg.

TUESDAY, DECEMBER 21

Ulupool: two trawlers, 50 tonnes; homemarket, 50 tonnes at 21.80/21.5. Mixed in size, spent, 420/450 per 50kg. Uig: two trawlers, 67 tonnes; homemarket, 67 tonnes at 22.0/22.50. Uniform spents, 320/330 per 50kg. Mallaig: four trawlers, 33 tonnes; homemarket, 33 tonnes at 21.50/22.40. Mixed spents, 412/432 per 50kg.

Skipper is jailed for poaching

SCOTTISH skippers have expressed regret at the decision of Appeal Judges in the Scottish High Court that Skipper Stanley Duncan (44) of Ruvell, Mallaig, must serve a three-month jail sentence for illegal fishing.

After his appeal Skipper Duncan, owner of Fair Morn, was taken to prison in Edinburgh.

He appeared at Dingwall Sheriff Court on September 9 and admitted a fourth offence of illegal fishing.

He had been caught trawling at six miles from the low water mark at Crowlin Island, on the west coast, inside the limit.

Sheriff Murdoch, when sentencing him to three months imprisonment, said: "He had been caught making a fool of the law of Parliament."

He added that he was not unsympathetic to the difficulties of fishermen, but he had no alternative but to impose the jail sentence. At an earlier appearance in court Skipper Duncan had intimated an appeal and had been released.

Jim Lovie, chief executive of the Scottish Fishermen's

DONEGAL fishermen

have protested to the Dutch Ambassador in the Dublin over the behaviour of 20 Dutch fishermen who set trawlers adrift in Killybegs.

The incident happened as the Dutchmen returned to their trawlers following a Saturday night "on the town".

The fishermen had come ashore in rubber dinghies, but apparently used the local trawlers to get back to their vessels - Basal, owned by Verner Neilson and Melabruce, owned by Frank McCaillie.

Three crewmen were sleep aboard Melabruce and managed to steer both vessels back to port, without damage. But there was a lot of ill-feeling in Killybegs over the incident.

Local fishermen met and decided to take no reprisals against the Dutchmen, but to send a telegram expressing strong condemnation and disgust at their behaviour to the Dutch Ambassador at Dublin.

Yard builds stern fisher for Iceland

THE COWES boatyard of A. Souter & Son, better known for building racing boats, is starting work shortly on a 36ft. fishing boat for Icelandic owners.

The boat will be based on the Tyler-Watson GRP hull and completion is expected in April, 1977.

The boat will be powered by a C-Power Ford diesel producing 150 hp. A wide range of electronics will be installed including a Decca 110 radar.

The hull will have a raised forecastle with accommodation

under for the four crew. The forward wheelhouse is set into this raised deck leaving a large clear aft deck.

She will be rigged for stern trawling with a gantry and two-ton North Sea winch, and for potting with a 4-ton North Sea line hauler.

This vessel will be the first fishing boat which this Cowes yard has completed and follows on from an order for a customs launch for Iceland which the firm is building at present. Both craft were ordered through Steinavor Ltd. of Reykjavik.

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LABELS SENT ON REQUEST

TOP TRAWLER TO FISH MACKEREL

LOWESTOFT'S top earning trawler for 1976, the 121 ft. St. Patrick, is to sail to Plymouth early in the New Year to fish for mackerel. She has now ended her North Sea fishing for the year and the conversion work for mid-water trawling is nearly completed.

This move follows the recent statement by another of the major trawler-owning firms at the port, Boston Deep Sea, that its new trawler Boston Sea Ranger would also be leaving for the West-country mackerel grounds in the New Year.

In a difficult year for the fishing industry, St. Patrick has established an unassailable lead in the list of port championships.

Under Skipper David Besford, who is to keep the command for the mackerel venture, St. Patrick has landed a total catch of 100,335 stone of fish this year to set up a new record gross earning total of £241,167.

Aubrey Moore, general manager of the Claridge Group at Lowestoft, said St. Patrick's record earnings had to be set against a background of steadily rising costs.

"It will be remembered that last year was a diabolical one, and there have again been losses suffered this year", he went on.

He said the decision to send St. Patrick to the south west was a necessary step to diversity interests as fishing limits were extended and quotas set for various species.

"We now have a company fleet of some 50 vessels. We feel we must diversify as much as possible, and in ad-

dition to this new venture, continue to operate trawling trips to grounds west of Shetland", he said.

With the prospect of two Lowestoft trawlers working south-west grounds for mackerel during the early part of next year, the venture is seen as a significant bid by British interests to claim high shares of mackerel fishing.

It has been estimated that the total mackerel catch by British fishing boats this year - year.

Cod liver oil man retires

GEORGE Ernest Tunnicliffe, who joined the Humberston cod liver oil processing industry 41 years ago as a chemist in a small laboratory at Hull's old fish dock, has retired as deputy chairman of the Marfleets Refining Co. Ltd.

He began his long association with the industry shortly after the Hull trawler owners had established British Cod Liver Oil Producers Ltd. as a co-operative and were having Marfleet Refinery built.

After the opening of that refinery in 1935, Mr. Tunnicliffe held various positions with the owning company, including chief chemist, works manager, production manager, general manager, chief executive and managing director, before his appointment as deputy chairman in the final year of his service.

In 1939, trawler owners in the co-operative became known as British Cod Liver Oil (Hull & Grimsby) Ltd. This arrangement strengthened the production of cod liver oil in both Humberston ports.

Mr. Tunnicliffe figured prominently in the development of that enterprise which, for many years, has produced one-third of the world's supply of cod liver oil.

'Snackered' star's end

FROM the glamour of television to the obscurity of the breakers yard. This has been the sad change of fortune for Boyd Line's trawler Arctic Ranger. She was the first steam trawler to work from Hull and was starring in the television series "Snacker". The 192 ft. vessel is being broken up at Victoria Dock, Hull, by the firm of Albert Draper & Son. She was built at the yard of Cook, Welton & Gemmell at Beverley in 1957. At the end she bore her TV name Dynasty Neptune.

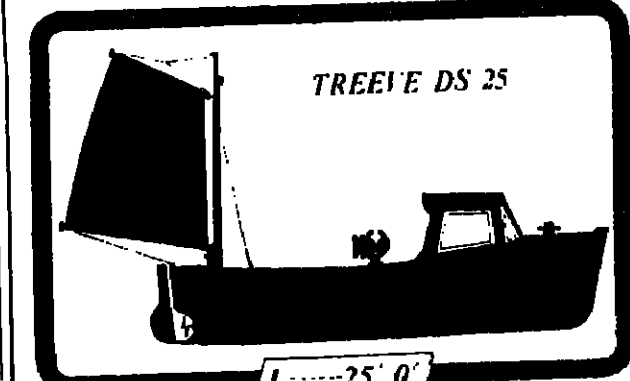
PRISCILLIAN GOES TO LOWESTOFT

THE 283-ton middle/near water trawler Priscillian, one of eight vessels repurchased last summer by the WFA from the Robinson fleet, has been sold to Small & Co. (Lowestoft) Ltd.

Priscillian left Grimsby for Lowestoft on December 15 and her departure means that the Suffolk port has increased its fleet by six trawlers as a direct result of the sale of the former Robinson vessels. The other five vessels have already joined the Claridge Group.

It is expected that Priscillian will be renamed to conform to fit in with her new owner's fleet. Of the eight Robinson trawlers, only Philadelphia and Rhodan, shortly to be renamed Sando by owners Taylor Trawlers Ltd., are still in Grimsby, but

THE SHETLAND fleet was not involved in the row which flared up last week over French trawlers harrying Scottish boats off the islands. Shetland boats have been aware of the big French stern trawlers, and moved to other grounds.



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Continued from Page 23

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50 years ago

CHRISTMAS 1928

DUE TO the time and money lost with the coal strike, many boats spend Christmas at sea this year instead of putting into port as usual. Over 1,000 Hull fishermen working the North Sea over holiday.

ST. KILDA will get no mail this Christmas. No trawlers can be found to take post out to the island.

RNI.I saves 448 lives this year, 66 more than in 1925. Over 40 were rescued in November.

GERMAN trawlers land over four-tons of fish rose

... Recalling some of the stories which appeared in our columns this week 50 years ago.

at Aberdeen. If eggs had hatched, the port could be supplied with over 10,000 tons of fish per day for one year.

DUTCH eel boat lands 40,000lb of live eels at Billingsgate. The 100ft. Hans II is the largest boat of her kind to land at the market.

CENSUS of British steam drifter fleet reveals 801 Scottish drifters with an average age of 18 years and 485 English drifters of an average of 16 years. Bulk of fleet ranges from seven to 35-years-old.

BRIGHTLINGSEA sprat curing factory of George Talbot Ltd. installs machine which washes, scales and cleans half-a-million sprats per hour.

NEARLY 500 whales taken in Alaska waters this year.

FOOD Council to make inquiry into fish prices next year.

MANY Lossiemouth fishing families emigrated to Australia after poor East Angles herring season.

RECORD number of bankruptcies this year food industry says. Board of Trade in annual report. But number of failures in fish trade falls.

BARN Lighthouse's rocket stove explodes destroying part of building.

No records at Grimsby

GRIMSBY'S last hope of recapturing the national grossing record for a wet fish trawler, during 1978 at least, vanished completely in a spate of mediocre landings by 11 distant water trawlers last week.

Among those making their final trips was BUT's *Ross Revenge* (Skipper Johnny Meadows), Britain's largest sidewinder and former title holder for three months until the end of November.

In common with the rest of the vessels, she found the combination of bad weather and slack fishing too great a handicap to overcome and had to settle for a £53,787 grossing — a long way short of anything approaching record proportions.

It was a big disappointment for Grimsby, anxious to regain the record which Hull has held on to for longer than the south Humber port owners care to remember.

Nevertheless, the *Ross Revenge* trip was the best at Grimsby last week — the 24-day voyage producing a turn out of 1,644 kits, mostly codstuffs, although it included nearly 500 kits of haddock.

With everyone forced on to the White Seas grounds, the skippers on the lookout for plaice were largely disappointed and there were only three trips of flots all week, from the Boston stern fisher *Ann's* (Skipper Ray Evans), and Consolidated and last week very nearly did it again, with £5,702 from 193 Pat (Blaney) and Aldershot kits after a 17-day trip.

William Wilberforce — a good come-back trip.

(Skipper Dave Ferrand). Pick of these was *Port Vale* with £39,925 from a 24-day trip of 1,226 kits, but even this was not good enough for second spot overall and she had to make do with third place behind another cod and haddock trip from BUT's *Lord Jellison* (Skipper Bill Sate).

Skipper Tommy Evans, back from retirement and in *William Wilberforce*, now into action after a six-month lay up, also did very well to gross £39,078 from 1,206 kits of cod and haddock.

These were the only real bright patches in rather a dismal week for the distant waters with the 11 trawlers landing a total of only 13,230 kits.

Nor was the picture much better with the near/middle water trips and ten vessels landed only 4,914 kits through the week.

Best outing here came from H. L. Taylor's *Nanoo* (Skipper George Hughes) with a £16,276 grossing from 617 kits, including nearly 300 of cod and 200 of dogs, after an 18-day Westerlies, Faroes trip.

With the supply situation again less than 20,000 kits, plus nearly 4,000 boxes of overland, seiner owners Allard, Hewson & Co. Ltd. was delighted to head this section with its three landings.

Last year, when nearly every seiner was laid up, from the Boston stern fisher *Ann's* (Skipper Ray Evans), and Consolidated and last week very nearly did it again, with £5,702 from 193 Pat (Blaney) and Aldershot kits after a 17-day trip.



When Norman Sioley decided to buy a new inshore fishing vessel he had to think very carefully. Combe Martin, Devon, faces straight out into the Atlantic, and in between onshore gales, which roll unheeded through the moorings, the vessels are subjected to ground seas that can wear keel bands out in one year. For tough conditions you need a tough boat — and Norman chose Cygnus.

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